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ABSTRACT

This consumer education learning activity package is one of a series of six Project SCAT (Skills for Consumer Applied Today) units. It teaches secondary level students about the importance of a balanced diet and what nutrients are most important to good health. The package includes instructions for the teacher, suggestions for activities, lists of materials, student activity worksheets, a student resource booklet of background readings, and answer keys. Content taught includes the nutritional values of various foods, trends in eating habits, effects of advertising on eating habits, and possible dangers of the typical American diet. Students are involved in many different kinds of activities. For example, students read and discuss short readings in the resource booklet and view and discuss films. In one worksheet activity listing good food sources of essential vitamins, students are asked to check off the foods they are eating. At the end of one week they score the chart to see if they are cheating themselves out of vitamins, proteins, and minerals. In another activity, students choose and analyze a television or magazine ad for a food or drink product. Other activities involve students in taking attitude surveys, examining food labeling, and analyzing graphs. (Author/RM)

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HEALTH

AND

THE CONSUMER

SO 013 473

BALANCED DIET: "Eater's Digest"

Skills for Consumers Applied Today

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Teacher PAL Tips

Welcome, teachers, to this $CAT Consumer Education Teacher PAL*. We hope you will find this a useful resource while you are teaching this subject. Features of this PAL include:

A CONTENT OUTLINE of the Student PAL subject matter to aid you in class discussions.

STUDENT OBJECTIVES which state in behavioral terms the objectives of the Student PAL.

SUGGESTED ACTIVITIES which you may wish to use as enrichment activities. These include:

INTRODUCTORY ACTIVITIES which give suggestions for introducing the topic.

DEVELOPMENTAL ACTIVITIES which give ideas for developing the major concepts in the Student PAL. These suggestions are keyed to each section of the Student PAL and include appropriate resources.

REVIEW ACTIVITIES which give suggestions to guide the culmination of the study.

RESOURCE suggestions which are of three types and coded as follows:

* Materials developed by $CAT and included in this Teacher PAL.

+ Commercially developed materials, available at a cost.

= Commercially developed materials, available free or on a free-loan basis.

ADDRESSES of the producers of all suggested resources as well as others which you may wish to contact for additional ideas and/or materials.

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* Packaged Activities for Learning

A SPECIALIZED VOCABULARY which is an alphabetized listing of all the "Passwords" listed in the Student PAL.

FILM DESCRIPTIONS for each film suggested as a resource.

INSTRUCTIONAL AIDS which include Xerox masters for the Test, the Test Answer Sheet, Student Activity Sheets, Film Guides, and Transparencies which you may wish to use in your study.

ANSWER KEYS for the Test, $CAT-developed Activity Sheets, and all pages from the Student PAL requiring student responses.

A STUDENT PAL for your reference.

In addition, some pages in the Student PALs are designed specifically to encourage class discussions, and teacher-led discussions may be necessary to insure student comprehension of the concepts presented. Such pages in the Student PAL for this topic include:

Page 4:	Validity of assertions made about nutrition
Pages 5-6:	Discovering personal food preferences and attitudes
Pages 22-23:	Validity of claims for vitamins and dangers of overuse
Page 25:	Nutritional values and problems of fast-food meals
Page 28:	Universality of balanced diets
Pages 31-38:	Reasons for trends in the American diet
Pages 41-42:	Analyzing advertisements for food and drink
Pages 48-69:	Possible health dangers resulting from our eating patterns

These features are suggestions only. You, the instructor, know your class best and should feel free to choose those activities and resources most appropriate for your students.

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Balanced Diet

There's an old saying: "What you don't know can't hurt you." This may be acceptably true for many areas, BUT NOT when the subject is nutrition.

What children don't know about the food they eat may hurt them quite badly: general health, normal growth and development, emotional and mental stability, and even a child's learning ability are all affected by an unbalanced diet.

Science might teach a child all about how his body works, but it may not teach him anything about what his body needs. According to David R. Stronck in the The American Biology Teacher, "Few modern biology textbooks contain any discussion of the most urgent aspect of nutrition education: the poor eating habits of Americans and their effects on health. Misinformation about food and malnutrition may be America's greatest social problem."

Man's most basic need, outside of air to breathe, is food. It is also one of man's most basic pleasures. Yet, most Americans can tell you more about football or automobiles than they can tell you about food and nutrition.

In the preface to Food For People, Not For Profit, Ralph Nader asks: "How can a subject of such daily importance be so neglected in our education and communications systems? How can so many people supinely take what passes as food in the supermarket and vending machines as long as it is 'tasty,' easy to chew, and visually presentable? Why do people spend hundreds of hours a year earning enough money to buy food and not one day a year learning how and when to buy food?"

The quality of the American diet may have seriously deteriorated. No longer are Americans the best fed, most healthy, and longest lived of earth's peoples. Food quantities have not diminished for most Americans, only attention to diet has done so. While dangers to physical health possibly lie in the area of food processing standards and additives, the one area over which the consumer has the most direct control is the choice he makes in the types of foods he consumes.

By focusing the consumer's attention on the quality of his diet and its possible consequences, perhaps some dangerous trends may begin to be reversed.

Content

I. Insuring good nutrition

- A. Knowledge of food nutrients
    - 1. Protein
        - a. Functions
            - (1) Essential part of living cells
            - (2) Builds, repairs and maintains body tissue
            - (3) Supplies energy
        - b. Sources
            - (1) Complete--meat, fish, poultry, and dairy products
            - (2) Incomplete--nuts, beans, cereals, vegetables, fruits
    - 2. Carbohydrates
        - a. Functions
            - (1) Supply food energy
            - (2) Aid in efficient use of fats
        - b. Sources
            - (1) Starches
            - (2) Sugars
    - 3. Fats
        - a. Functions
            - (1) Most concentrated source of energy
            - (2) Help body use other nutrients
        - b. Sources
            - (1) Fats and oils
                - (a) Animal
                - (b) Vegetable
            - (2) Salad dressings, dairy products, nuts, and bacon

Outline

4. Vitamins
   a. Vitamin A
      (1) Functions
         (a) Helps eyes adjust to dim light
         (b) Keeps skin smooth
         (c) Keeps lining of mouth, nose, etc., healthy
         (d) Promotes growth
      (2) Sources
         (a) Foods of animal origin
         (b) Carotene in vegetables and fruits
   b. B Vitamins
      (1) Functions
         (a) Help body cells obtain energy
         (b) Keep nerves in healthy condition
         (c) Keep skin around mouth and nose smooth
         (d) Promote appetite and digestion
      (2) Sources
         (a) Meats and dairy products
         (b) Nuts, beans, and some vegetables
         (c) Whole grain and enriched cereals and breads
   c. Vitamin C
      (1) Functions
         (a) Helps hold body cells together
         (b) Strengthens blood vessel walls

      - (c) Aids in healing wounds
      - (d) Aids in tooth and bone formation
    - (2) Sources
      - (a) Fruits--especially citrus
      - (b) Vegetables
  - d. Vitamin D
    - (1) Function--helps body use calcium and phosphorus to build strong bones and teeth
    - (2) Sources
      - (a) Some fish, liver, eggs, fortified dairy products
      - (b) Direct sunlight
- 5. Minerals
  - a. Calcium
    - (1) Functions
      - (a) Builds bones and teeth
      - (b) Helps blood clotting
      - (c) Helps proper functioning of nerves, muscles and heart
    - (2) Sources
      - (a) Dairy products
      - (b) Green leafy vegetables
  - b. Iodine
    - (1) Function--helps thyroid gland to work properly
    - (2) Sources
      - (a) Iodized salt
      - (b) Seafood

c. Iron
(1) Functions
(a) Combines with protein to make hemoglobin
(b) Helps cells use oxygen
(2) Sources
(a) Meats and oysters
(b) Dry beans, peas, and some fruits and vegetables
(c) Whole grain and enriched cereals and breads
6. Water
a. Functions
(1) Important part of all body cells and fluids
(2) Carrier of nutrients to and waste from body cells
(3) Aids in digestion and food absorption
(4) Helps regulate body temperature
b. Sources
(1) Water
(2) Contained in beverages, soups, and most foods

. Nutrients often lacking in our diets
1. Calcium
2. Iron
3. Some vitamins

C. U.S. RDA
    1. Recommended amounts of nutrients
    2. Used on nutrition labels

D. Knowledge of food groupings
    1. Importance of VARIETY in the diet
    2. The Basic Four--simple way to good nutrition
        a. The Milk Group (2-4 servings daily)
            (1) Milk
            (2) Cheese
            (3) Milk-made products
        b. Vegetable-Fruit Group (4 servings daily)
            (1) Vitamin C sources
                (a) Citrus fruits
                (b) Tomatoes
            (2) Vitamin A sources
                (a) Dark green foods
                (b) Deep yellow foods
            (3) Others
        c. The Meat Group (2 servings daily)
            (1) Meats
            (2) Poultry
            (3) Fish
            (4) Alternates
                (a) Eggs
                (b) Nuts
                (c) Peanuts, peanut butter
                (d) Dry beans, dry peas, lentils

- d. The Bread-Cereal Group (4 servings daily)
  - (1) Whole grain or enriched breads
  - (2) Cereals
  - (3) Grain products
- 3. Other foods needed
  - a. Fats
  - b. Fluids

E. Awareness of vitamin myths
- 1. Overuse of vitamins can cause problems
- 2. Adequate diets don't need vitamin supplements

F. Calories
- 1. Unit for measuring energy value of food and of energy we expend
- 2. Balanced intake and outgo important to maintain weight

G. Nutritional value of fast-foods
- 1. Usually high amounts of protein and calcium
- 2. High number of calories
- 3. Lack a few important nutrients
- 4. Need balancing in other meals

II. Trends in eating patterns

A. Factors contributing to eating pattern changes
  1. New technologies
  2. Affluence
  3. Government programs
  4. Working parents
  5. End of baby boom
  6. Health concerns

B. Trends since 1910
  1. Less milk, but more dairy products
  2. More vegetables and fruits, especially processed
  3. Decline in potato consumption, but now showing an increase
  4. Decline in carbohydrate intake
    a. Sharp decline in starch consumption
    b. Increase in sugar consumption
  5. Bean, pea, and nut consumption about the same
    a. Slight decline in dry beans and peas intake
    b. Increase in nut consumption
  6. Increase in meat and poultry consumption
  7. Decrease in egg consumption
  8. Increase in fat consumption
    a. Increase of vegetable fat intake
    b. Decrease of animal fat intake

III. Effects of advertising on eating habits

- A. Many eating habits learned from advertising
- B. Techniques used to "sell" products
    - 1. Appeal to emotions
    - 2. Endorsement by a famous person
    - 3. Appeal to logic

IV. Possible dangers of typical American diet

- A. Some conditions linked to diet
    - 1. Heart disease
    - 2. Dental decay
    - 3. Diabetes
    - 4. Cancer
- B. Some possible mistakes in our diet
    - 1. Too much food
        - a. 20% of children are overweight
        - b. 33-50% of adults in cities are obese
        - c. Being overweight endangers health
            - (1) Higher death rate
            - (2) More likely to develop certain diseases
            - (3) More problems in pregnancy
            - (4) Fad diets can be dangerous
    - 2. Too much salt
        - a. Consume 5-20 times more sodium than needed

        - b. Sources
            - (1) Adding salt directly to food
            - (2) Used in processing food
        - c. Can lead to hypertension
            - (1) Linked to stroke and heart attack
            - (2) Strikes 20% of Americans over the age of 40
- 3. Too much sugar
    - a. Major cause of much dental disease
    - b. Implicated in obesity and diabetes
    - c. Use of sugar at all time high
        - (1) Twice as much as 80 years ago
        - (2) 75% of sugar consumed is in processed foods
        - (3) Sugar provides almost 18% of calories
    - d. Decreases appetite for better foods
- 4. Too little fiber
    - a. Hinders proper digestion
    - b. Implicated in several major diseases
    - c. Results from modern processing
- 5. Too much fat
    - a. Importance of cholesterol
        - (1) Needed for normal body functions
        - (2) Excessive amounts associated with arteriosclerosis and heart attack

        (3) Cholesterol level can be changed by diet
            (a) Raised by diet high in cholesterol and saturated fats
            (b) Lowered by unsaturated fats
    b. Fat intake is linked to some cancers

C. Statistics can be twisted to support opposing views

D. Dietary goals urged on Americans
    1. Result of hearings by Senate Select Committee on Nutrition and Human Needs
    2. May help reduce incidences of certain diseases
    3. Controversial
        a. PRO
            (1) Relationship to diseases
            (2) Sufficient knowledge in area to make recommendations
            (3) Responsibility of government to guide people in food choices
        b. CON
            (1) Life expectancy indicates adequacy of present diet
            (2) No simple answer to diseases of "old age"
            (3) Not based on scientific data
            (4) Diet should be individual choice

Student Objectives

1. Given a list of alternatives, the student will identify a possible problem of the average American's diet.

2. Given a list of diseases, the student will select "diabetes" as a disease which doctors believe can be brought on by being overweight.

3. Given several types of cancer, the student will identify that cancer of the colon has been linked to the high-fat/low-fiber American diet.

4. Given several alternatives, including "cholesterol," the student will select "cholesterol" as a substance which can lead to hardening of the arteries and heart disease.

5. Given a list of descriptive phrases, the student will select a characteristic of saturated fat.

6. The student will select, from among several alternatives, the definition of roughage.

7. From a list the student will select a consequence of a diet too rich in salt.

8. From a list the student will select a consequence of a diet too rich in sugar.

9. Given several alternatives, the student will select a benefit derived from sugar in the diet.

10. The student will select from a list of several alternatives, the names of the groups included in the Basic Four Food Groups.

11. Given several meal menus, the student will select the menu which contains a food product from each of the Basic Four Food Groups.

12. Given several alternatives, including "protein," the student will select "protein" as the nutrient which builds and maintains tissues.

13. Given several alternatives, including "iron," the student will select "iron" as the nutrient which helps make hemoglobin and helps cells use oxygen.

14. Given several alternatives, including "carbohydrates," the student will select "carbohydrates" as the nutrient which helps the body use fat and supplies energy--thereby saving protein for body building and repair.

15. The student will select from among several alternatives a possible nutrition problem of fast-food meals.

16. Given several alternatives, the student will select one reason consumers should be careful of food product advertisements.

Introductory Activities

Generalizations	Activities	Resources
Students need to be made aware of the physical necessity for sound nutrition.	1. Administer *Eater's Digest* test as a Pre-test.	* Test Teacher PAL
	2. Divide the class into small groups and "brainstorm" what consumers should know about nutrition.	* Transparency Master #1 Teacher PAL
Students need to learn how a knowledge of nutrients and the food groups will facilitate the maintenance of a balanced diet.	3. Develop a questionnaire to illustrate to your students common misconceptions about good nutrition.	* Student Activity Sheet #1 Teacher PAL
	4. Discuss problems in the American diet today.	* Student PAL, pp. 3-8
Students need to gain an understanding of the affect advertising has on their food choices.		* Transparency Master #2 Teacher PAL
	5. Discuss attitudes and values in regard to eating.	* Student Activity Sheet #2 Teacher PAL
	6. Ask students to graphically illustrate their conceptions of GREAT NUTRITION and MAL NUTRITION.	* Student Activity Sheet #3 Teacher PAL
	7. Discuss possible reasons the average American's knowledge of nutrition is so low.	* Transparency Master #3 Teacher PAL
	8. Discuss the quotation, "We are what we eat." To what extent is this true?	

Generalizations	Activities	Resources
	9. With the class, compose a list of terms peculiar to food and nutrition. Ask students to define the terms and keep them for reference throughout the unit.	* Specialized Vocabulary Teacher PAL
	10. Discuss with the class how food is used as a show of affection; e.g., birthday or anniversary cakes, desserts as rewards to children, and food offered as a gesture of friendship.	
	11. Ask students to bring in a recipe that has special meaning to them and tell why that particular food is so significant.	
	12. Discuss food processing with students in terms of the number of steps food goes through before we see it on our tables: farmers or ranchers, pickers, processors, shippers, wholesalers, storage agents, and retailers. Ask students to survey newspapers and magazines for ads showing some phase of food processing.	+ Newspapers, Magazines
	13. Utilize an audio-visual approach to introduce students to the need to eat a balanced diet.	= Gameplan Life (16 mm film) Abbott Film Service + The Eating on the Run Film (Film Guide #1) (16 mm film) Alfred Higgins Prod. = The Waistland = Why Doesn't Cathy Eat Breakfast? = The Day Milk Was Turned Off = A Song of Arthur (Film Guide #2) = Three Times a Day (Film Guide #3) (16 mm films) Association-Sterling Films

Generalizations	Activities	Resources
		+ The Consumer and the Supermarket (Film Guide #4)
		+ The All American Meal (Film Guide #5) (16 mm film) Barr Films
		+ The Sugar Cereal Imitation Orange Breakfast (Film Guide #6) (16 mm film) Benchmark Films, Inc.
		= Todays Choices (color/slide filmstrip) Cereal Institute, Inc.
		+ Who Needs Meat? (16 mm film) Films, Incorporated
		+ "Nutrition: What's in It for You" (multi-media kit) J.C. Penney Co., Inc.
		+ Calories: Enough Is Enough (Film Guide #7)
		+ Snacks Count Too (Film Guide #8) (16 mm films) Journal Films, Inc.
		+ Food: The Story of the Peanut Butter Sandwich (Film Guide #9) (16 mm film) Learning Corporation

Generalizations	Activities	Resources
		+ Nutrition Kit Part I - "Confessions of a Junk Food Junkie" (color/sound filmstrip) Learning Seed Co. = Balance, Balance, Balance (Film Guide #10) = Changing Foods in Changing Times (16 mm films) Modern Talking Picture Service + "Food: A Super Natural Resource" (multi-media kit) National Dairy Council + Nutrition: Food vs. Health Part I - "The Food Game" + How to Lose Weight + Nutrition and Exercise (color/sound filmstrips) Sunburst Communications + Food to Grow On: Nutrition From Newborn Through Teens + Food to Live On: Nutrition From the Twenties Through the Nineties (color/sound filmstrip kits) Tupperware Home Parties

Generalizations	Activities	Resources
		+ Foods, Fads, and Fallacies + Good Sense and Good Food (color/sound filmstrip kits) Walt Disney Educational Media Company + Nutrition Is... (Film Guide #11) (16 mm film) West Glen
	14. Demonstrate how highly priced some convenience foods really are. Provide students with such products and compare the cost of these products to similar foods prepared from fresh ingredients.	
	15. Make a collage of advertisements of food products. Analyze the appeal each advertisement makes.	+ Magazines, Newspapers
	16. Develop a learning center or small group activity using food illustrations and/or pictures of people eating (or starving) around the world.	+ The Politics of Food Documentary Photo Aids
	17. Ask students to clip cartoons, jokes, or articles concerned with eating. Make a bulletin board or collage of the clippings. Add to the display until finished studying the PAL.	+ Magazines, Newspapers

Developmental Activities

Activities	Resources
1. Utilize ***What is good nutrition?***	* Student PAL, pp. 9-28
2. Introduce the topic of nutrition by asking, "DO YOU EAT TO LIVE, OR LIVE TO EAT?" Discuss responses.	* Transparency Master #4 Teacher PAL
3. Emphasize the importance of major nutrients. List good sources for each.	+ Food: Health and Diet Part I--"Nutritional Needs of Your Body" (color/sound filmstrip) Sunburst Communications
4. Utilize government, industry, and consumer publications in discussions on good nutrition.	+ "The Healthy Way to Weigh Less" + "Your Age and Your Diet" (pamphlets) American Medical Association
	+ "Nutrition as Therapy" (January, 1980) Consumer Reports
	= "Nutrition Sense and Nonsense" FDA Consumer Reprint #73-2009 = "A Primer on Dietary Minerals" FDA Consumer Reprint #75-2013 = "A Primer on Four Nutrients: Proteins, Carbohydrates, Fats, and Fiber" FDA Consumer Reprint #75-2026 Food and Drug Administration

Activities	Resources
	= "Feeding the Teen Machine" = "Food for Fitness: Athletic Nutrition" = "Is Your Family Eating Right?" = "Nutrition--An Essential for Health" = "Protein for Life" = "Water: The Forgotten Nutrient' (pamphlets) General Mills, Inc.
	+ You Are What You Eat (book) Macmillan Publishing Co.
	= "Nutrition Alert" (pamphlet) National Canner's Association
	= "Guide to Wise Food Choices" (pamphlet) National Dairy Council
	+ Nutrition Labeling: How It Can Work For You (book) National Nutrition Consortium
	+ "Obesity" + "Your Diet: Health Is In The Balance" (pamphlets) The Nutrition Foundation, Inc.
	= "Family Fare: A Guide to Good Nutrition" Home and Garden Bulletin #1 (pamphlet) USDA

Activities	Resources
	+ "Food" Home and Garden Bulletin #228 = "Food and Your Weight" Home and Garden Bulletin #74 = "Food Is More Than Just Something to Eat" = "Nutrition and Your Health" (pamphlets) USDA
5. Highlight the most important aspects of nutrition labeling. (Food labels are covered in depth in the Food Shopping PAL, *Food For Your Brood*.)	* Transparency Master #5 Teacher PAL = "Nutrition Labeling--Terms You Should Know" FDA Consumer Memo #76-2012 Food and Drug Administration
6. Discuss the "Basic Four" Key to good nutrition.	* Transparency Master #6 Teacher PAL + Food for Life: The Basic Four (color/sound filmstrip) Tupperware Home Parties
7. Assign each student to bring to class a nutrition label for a food product from each of the four food groups. Use them to create a classroom display which highlights the important nutrient contributions of each food. Compare the food value of the enriched and fortified foods with those that are not enriched or fortified.	
8. Ask students to evaluate their eating for one week, checking particularly to see if they are cheating their bodies of any essential nutrients.	* Student Activity Sheet #4 Teacher PAL
9. Discuss food prejudices. For example, many skip breakfast because they find typical breakfast food particularly unappealing. Pose the question of whether they would eat a tuna sandwich or hamburger at breakfast. Explain that some food is better than none.	

Activities	Resources
10. Explain that studies in France (where breakfast is not popular or consists of only coffee and sweet rolls) show high accident rates in traffic and on-the-job in the morning. With this background knowledge in mind, ask students to describe the way they usually feel between 10 A.M. and noon. Compare their feelings to their breakfast menus.	
11. Introduce students to a variety of foods with a blindfold taste-testing activity. Include feels with which they may not be familiar. Have students record their guesses as to the identity of the mystery foods. Compare student responses at the end of the activity.	Food samples Blindfolds
12. Make a bulletin board or display to: Show ads for foods that are high and low in nutritional value Show ads for foods from each of the four food groups Show ads for foods high in particular nutrients Analyze the techniques used in the advertisements to "sell" the products.	+ Magazines
13. Have students analyze the school lunch menus, putting each item into one of the four food groups.	School lunch menus
14. Discuss alternative ways of determining whether you eat a balanced diet.	* Student Activity Sheet #5 Teacher PAL + "New American Eating Guide" (poster) + Nutrition Scoreboard (book) Center for Science in the Public Interest
15. Social studies and nutrition can be combined by honoring different nationalities in the school cafeteria. Encourage your food services director to serve one nationality's fare exclusively for a week. Point out to students how the four food groups and nutrients are present in foreign as well as American food. Stress the theme of variety as the key to a balanced diet.	
16. Invite a mother who prepares her own baby food to speak to the class. Ask her why she ignores commercially prepared baby foods and how she prepares and stores her own.	Local parent who prepares baby food at home

Activities	Resources
17. Borrow a supermarket shopping cart and fill it with all kinds of supermarket items. Have students analyze the items in the basket in terms of wise nutritional choices, or have students separate the items by the four food groups.	Supermarket shopping cart Supermarket food items
18. Create a learning center or small group activity to compare the aromas of a variety of foods.	+ "Microfragrance Scratch and Sniff" Labels Nutrition Studies 3 M Company
19. Ask each student to bring in a box of his favorite breakfast cereal. Compare nutritional values of cereals using the nutritional labeling panels on the packages.	
20. Discuss "Junk Foods." Ask students to name foods which they would consider "junk," and those which they would classify as nutritious snacks.	
21. Have students collect empty "junk food" boxes and containers for a bulletin board or display of non-nutritious items. Also, display snacks or foods of particularly high nutritive value.	
22. If your school has vending machines, determine if any stock purely nutritional items such as milk, fruit, etc. If not, assign a committee of students to ascertain potential student acceptance of these offerings. If enthusiasm or response warrants, have the committee investigate the possibility of obtaining this type of machine.	
23. Have students perform tests to show the presence of carbohydrates, protein, and fats in foods.	+ Young Scientists Look at Foods FDA Publication #42 Food and Drug Administration
24. Create a learning center or bulletin board display to show the relative presence or absence of vital nutrients in 60 different foods.	+ U.S. RDA Comparison Cards National Dairy Council
25. Discuss the relationship of vitamins to nutrition.	+ "Nutrition as Therapy" (January, 1980) Consumer Reports + "Vitamins: What They Can (and Can't) Do for You" (January/February, 1979) Consumer's Digest

Activities	Resources
	= "Myths of Vitamins" FDA Consumer Reprint #76-2047 = "New Regulations on Vitamins A & D" FDA Consumer Reprint #74-2015 = "A Primer on Vitamins" FDA Consumer Reprint #75-2003 = "Some Facts and Myths of Vitamins" FDA Consumer Reprint #79-2117 = "Vitamin E--Miracle or Myth" FDA Consumer Reprint #74-2004 = "Vitamins, Minerals, and FDA" FDA Consumer Reprint #73-7018 = "What about Vitamin C?" FDA Consumer Reprint #75-2015 = "What Consumers Know About Nutrition" FDA Consumer Reprint #75-2010 Food and Drug Administration
26. Ask students to evaluate their eating habits in regard to the number of calories consumed and compare that figure to their calorie needs.	* Student Activity Sheet #6 Teacher PAL
27. Discuss nutritional value of items served in fast-food restaurants. Ask students to plan fast-food meals which would provide a balanced meal in terms of food groups and nutrients. Try to include all the fast-food restaurants in your area.	+ "The Fast Food Fantasy" (May/June 1979) Consumers Digest + "Fast-food Chains" (September 1979) + "How Nutritious Are Fast Food Meals?" (May 1975) Consumer Reports
28. Discuss the growth of fast-food restaurants and the effect they have on America's diet.	* Student Activity Sheet #7 Teacher PAL

Activities	Resources
29. Discuss the importance of differentiating between fact and opinion in regard to nutrition information.	* Student Activity Sheet #8 Teacher PAL
1. Utilize ***What are trends in our eating patterns?***	* Student PAL, pp. 29-38
2. Ask students to determine important factors contributing to changes in eating habits.	+ *The Changing American Diet* (book) Center for Science in the Public Interest
3. Discuss trends of eating patterns shown by food consumption data since 1910. Compare the trends to the ideal diet plan of "Eating by the Basic Four." What problems do you find?	
1. Utilize ***Does advertising affect our eating habits?***	* Student PAL, pp. 39-44
2. Discuss different types of appeals often used in food or drink advertisements. Ask students to bring in examples of advertisements using such appeals.	* Transparency Master #7 Teacher PAL
3. Ask students to name or describe food ads that they especially remember. Some students may join in singing the song or jingle from a TV food commercial. Try to have students estimate the number of times they have heard one particular jingle or song.	
4. Ask students to collect and share with the class advertisements for food products or vitamin supplements. Analyze the selected advertisements.	* Student Activity Sheet #9 Teacher PAL

Activities	Resources
5. Discuss whether advertisements for "junk food" should be banned from television and radio as cigarette and liquor commercials have been.	
6. Discuss the notion that all non-nutritional foods should be heavily taxed. Discuss what standards, RDA or others, should be used to determine whether a food is nourishing or not.	
7. Discuss the fact that advertisers spend the major portion of $4 billion a year to promote the least nutritious foods--those highest in sugar and saturated fat. If possible, video-tape TV commercials of these types of products and show them to the class for analysis. Challenge students to describe commercials they have seen for highly nutritious products.	+ Soopergoop (16 mm film) Churchill Films
1. Utilize ***Are there dangers in the typical American's diet?***	* Student PAL, pp. 45-70
2. Utilize an audio-visual approach to introduce students to dangers in the present American way of eating.	+ Let's Eat Food (Film Guide #12) (16 mm film) McGraw-Hill Films + Look Before You Eat (Film Guide #13) (16 mm film) Churchill Films + Superjock (16 mm film) Journal Films
3. Discuss possible problems of the American diet.	* Transparency Master #8 Teacher PAL

Activities	Resources
4. Discuss possible health dangers of the typical American Diet and determine ways Americans could change their life styles to lower the risk of developing degenerative diseases--such as heart disease.	* Student Activity Sheet #10 Teacher PAL
5. Ask students to relate cases of adults they know who have had to be placed on a special diet because of poor health. How many of these conditions could have been avoided?	
6. Invite a physician or nutritionist to speak to the class on the relationship between diet and certain degenerative diseases.	Local physician or nutritionist
7. Invite a dentist to speak to the class on the relationship between diet and dental disease. (If possible, try to locate a dentist from a university dental school, since slides or other visual aids may be available to add shock value.)	Local dentist
8. Assign individual or group reports on: Diseases and mental deficiencies caused by poor dietary habits. The effects (positive and negative) of food processing.	
9. Devise a learning center or small group activity to show the health dangers of a poor diet.	+ Nutrition and Health (reel-to-reel tapes) Educational Activities, Inc.
10. Discuss with the class how a typical day's activities for men, women, and children differ today from activities in 1900. Discuss the implication on the diet of such individuals.	
11. Explain and illustrate with real products, if possible, the difference between saturated and unsaturated fat. Show advertising examples which stress the advantages of unsaturated fat.	Magazine advertising Slides produced from magazine
12. Compare the amount of meat consumed by average Americans to that consumed by other people of the world.	* Student Activity Sheet #11 Teacher PAL

Activities	Resources
13. Suggest that students interview a doctor or nurse in a free clinic or clinic for low-income families to determine if any patients have complaints or ailments that are related to poor nutrition, what the nature of those ailments are, and if they vary from ailments of other income groups. Determine if the income group that utilizes the clinic's services is more poorly nourished than other income groups.	Local doctor, nurse, or administrator
14. Invite a manager of a local health food store to explain how the food offered in his store differs from that found in a large supermarket. Ask for a description or display of a variety of nutritional snack foods as alternatives to the more well-known junk foods. Request that the manager explain or demonstrate the meaning of such terms as "stone ground" or "cold-pressed oil," and how these products differ from the more highly processed counterparts.	Local health food store manager
15. Develop a learning center or small group activity showing the various food effects on different people of the world.	+ The Politics of Food Documentary Photo Aids
16. Discuss the U.S. Dietary Goals. Ask the students to plan a week's menu of eating that would provide a balanced diet and meet the dietary guidelines.	+ Dietary Goals for the United States Superintendent of Documents U.S. Government Printing Office + Nutrition Kit Part II - "Dietary Goals of the U.S." (Color/sound filmstrip) Learning Seed Co.

Review Activities

Generalizations	Activities	Resources
The students will review the methods for maintaining a balanced diet, trends in Americans' eating patterns, advertising's effects on food choices, and possible connections between diet and degenerative diseases.	1. Many of our eating habits developed in ignorance of nutrition. However, in recent years, the public has become more aware of the dangers of certain foods and of the requirements for good nutrition. Discuss whether increased knowledge must necessarily bring about substantial change in eating habits, or will many people persist in their old ways, even though they know better.	* Transparency Masters #9, 10 Teacher PAL
	2. Devise learning centers, games, or activity sheets for students to differentiate between good and bad eating habits.	* Student Activity Sheet #12 Teacher PAL
	3. Some students work in local supermarkets as baggers, checkout clerks, or stock help. Ask these students to note typical food choices and differences in the buying habits of different age, sex, income, and ethnic groups, and report their findings to the class.	
	4. Conduct a study of the food practices and/or opinions of students in your school. Have the class prepare a questionnaire and distribute it. After the results have been compiled, publish the findings in the school newspaper.	* Student Activity Sheet #13 Teacher PAL
	5. Despite the nutritional drawbacks and deficiencies in the American diet, Americans generally have a long life span. Discuss reasons for this. Does this fact negate the value of good nutrition? Why? Why not?	
	6. Determine why some foods are considered to be "superfoods" by many nutritionists.	* Student Activity Sheet #14 Teacher PAL

Generalizations	Activities	Resources
	7. Compare our typical diet to the meager diet of underdeveloped countries. Do we have any responsibility toward others in the world who are really hungry?	* Student Activity Sheet #15 Teacher PAL
	8. Debate the following topic: Should the government have any interest in or authority to improve the nutrition of its citizens, since a society's future depends on the health of its members? Does it have a right, or an obligation, to change the eating habits of its people, or is this an unwarranted violation of a citizen's freedom of choice.	
	9. Discuss what consumers can do to increase the nutritional value of food purchased.	+ Nutrition: Food vs. Health II - "A Consumer Viewpoint" (color/sound filmstrip) Sunburst Communications
	10. A local supermarket is a rich storehouse of a wide variety of student exercises. Prepare student activity sheets and organize a field trip to one!	
	11. Devise games and puzzles to review the vocabulary of this unit on the balanced diet.	* Student Activity Sheet #16 Teacher PAL * "Specialized Vocabulary" Teacher PAL
	12. Review the student objectives for this module.	* Student Activity Sheet #17 Teacher PAL
	13. Ask students to express their opinions on diet problems and to determine goals and actions to overcome the problems.	* "Personal Commitment" Student PAL, p. [illegible]

Generalizations	Activities	Resources
	14. Ask students to determine the responsibilities of consumers, manufacturers, and the government in assuring that everyone eats a balanced diet."	* "Self-Evaluation" Student PAL, p. 72
	15. Administer *Eater's Digest* test as a Post-test.	* Test Teacher PAL

General Resources – Addresses

Abbott Film Service
% Scientificom Distribution
Center
708 North Dearborn St.
Chicago, IL 60610

Alfred Higgins Productions, Inc.
9100 Sunset Boulevard
Los Angeles, CA 90069

American Medical Association
535 North Dearborn St.
Chicago, IL 60610

Association-Sterling Films
866 Third Ave.
New York, NY 10022

Barr Films
Post Office 5667
Pasadena, CA 91107

Benchmark Films, Inc.
145 Scarborough Rd.
Briarcliff Manor, NY 10510

Center for Science in the
Public Interest
1755 S St. N.W.
Washington, D.C. 20009

Cereal Institute, Inc.
1111 Plaza Dr.
Schaumburg, IL 60195

Churchill Films
662 North Robertson Blvd.
Los Angeles, CA 90069

Consumer Information Center
General Services Administration
Pueblo, CO 81009

Documentary Photo Aids
P.O. Box 956
Mt. Dora, FL 32757

Educational Activities, Inc.
Freeport, NY 11520

Films Incorporated
1144 Wilmette Ave.
Wilmette, IL 60091

Food and Drug Administration
5600 Fishers Lane
Rockville, MD 20852

General Mills, Inc.
Nutrition Department
P.O. Box 1113
Minneapolis, MN 55440

Giant Food Inc.
Consumer Affairs Department
P.O. Box 1804
Washington, D.C. 20013

J. C. Penney Co. Inc.
Educational Relations Dept.
1301 Avenue of the Americas
New York, NY 10019

Journal Films, Incorporated
930 Pitner Ave.
Evanston, IL 60602

Kellogg Company
Department of Home Economics
Battle Creek, MI 49016

Learning Corporation of America
1350 Avenue of the Americas
New York, NY 10019

Learning Seed Company
145 Brentwood Drive
Palatine, IL 60067

MacMillan Publishing Co., Inc.
866 Third Avenue
New York, NY 10022

General Resources – Addresses

McGraw-Hill Films
1221 Avenue of the Americas
New York, NY 10020

Modern Talking Picture Service
5000 Park Street, N.
St. Petersburg, FL 33709

National Canners Association
1113 20th St., N.W.
Washington, D.C. 20036

National Dairy Council
Rosemont, IL 60018

National Nutrition Consortium, Inc.
9650 Rockville Pike
Bethesda, MD

The Nutrition Foundation, Inc.
489 Fifth Ave.
New York, NY 10017

Sunburst Communications
Pleasantville, NY 10570

Superintendent of Documents
Government Printing Office
Washington, D.C. 20402

3 M Company
Visual Products Division
3 M Center
St. Paul, MN 55101

Tupperware Home Parties
Educational Services Dept. 78
P.O. Box 2353
Orlando, FL 32802

United States Department of Agriculture
Nutrition Program
Consumer and Food Economics Institution
Agriculture Research Service
Hyattsville, MD 20782

Walt Disney Educational Media Company
500 South Buena Vista St.
Burbank, CA 91521

West Glen Films
565 Fifth Ave.
New York, NY 10017

Specialized Vocabulary

ADVERTISEMENT	Paid announcement or message that gives information about products or services in an attempt to persuade consumers to purchase them
ANTHROPOLOGIST	Person who studies man and all aspects of mankind, including characteristics, customs, and habits
APPEAL	Means used in an advertisement to interest or reach the customer
BASIC FOUR	The Four Food Groups, i.e., Milk, Meat, Fruit-Vegetable, Bread-Cereal; eating by the Basic Four means eating a certain number of servings from each of the Four Groups each day
CALORIE	Unit for measuring the energy value of a food and of the energy we expend
CARCINOGEN	A cancer-causing substance
CARDIOVASCULAR	Relating to or involving the heart and blood vessels
CHOLESTEROL	A fat-like substance made in the body and found in every cell; normal constituent of blood and tissues
CHRONIC	Constant, or lasting a long time
CITRUS	Fruits with a thick rind and acid flesh, such as oranges, lemons, and grapefruit
CON	An argument against something or someone

DEGENERATIVE DISEASE	Disease caused by a progressive deterioration of a body tissue or organ which then decreases its ability to function properly
ENRICH	Add specific nutrients to a food as established in a federal standard of identity and quantity (for example: enriched bread); amounts added generally are moderate and include those commonly present at even lower levels
EPIDEMIOLOGY	Branch of medical science concerned with the incidence and distribution of disease in a population
FAST FOOD	The type of food that is designed to be served quickly
FIBER	The part of the plant that is not digested, but is necessary for the proper movement of the bowel; also called roughage
FOOD CONSUMPTION FIGURES	Amount of food disappearing from the marketplace each year; does not take into account food purchased but not actually eaten
FORTIFY	Add to foods specific nutrients; amounts added are usually in excess of those found normally in the food because of the importance of providing additional amounts of the nutrients to the diet
GLUTTONY	The act or habit of eating too much
HYPERTENSION	High blood pressure (which places a greater strain on the heart)
MALNUTRITION	Faulty or inadequate nutrition
NUTRIENT	One of the more than 50 known elements of food which promotes body growth and development, regulates body processes, and supplies energy

NUTRITION	The process by which our bodies take in and utilize food substances
OBESE	The state or condition of being very fat; weighing twenty percent or more than ideal weight
OVERWEIGHT	Weighing ten percent or more than ideal weight
PRO	An argument in favor of something or someone
PROCESSED FOOD	Food which has been changed from its natural state
SATURATED FAT	Fat which is solid at room temperature; comes mainly from animal sources, also coconut and palm oil
TECHNIQUE	Method used
TRANSIENT	Passing away with time; temporary
TREND	Shift in preferences
U.S. RDA	U.S. Recommended Daily Allowances; amounts of nutrients we should eat daily to maintain good health; used on nutrition labeling
UNSATURATED FAT	Fat which is liquid at room temperature; comes mainly from vegetable sources

Film Descriptions

ALL AMERICAN MEAL (11 minutes) - Barr, 1976 FILM GUIDE #5

Today's "fast food" culture suggests that we are losing touch with some of the real values of life. As hamburgers, french fries, and soft drinks are prepared and eaten, the nutritional value of the "All American Meal" is discussed along with suggestions for improvement. Very real problems of the "quickie meal" are the loss of variety in the diet and leisurely companionship at the dinner table. Good nutrition demands an understanding of all our body's needs and a real concern for good health.

BALANCE, BALANCE, BALANCE (13 minutes) - Modern Talking Picture Service, 1975 FILM GUIDE #10

Produced by Chiquita Brands, Inc., this humorous musical is about the balance of good nutrition and physical exercise throughout life. Some of the lifestyles of past generations and some of the sillier aspects of eating exercise habits are looked at through lyrics and music. Today's generation of teens are shown with a more positive approach to physical fitness and eating habits. The importance of maintaining balance throughout life is the message conveyed through an upbeat, fun approach.

CALORIES: ENOUGH IS ENOUGH (12 minutes) - Journal, 1974 FILM GUIDE #7

This film describes the effect of energy in food on our bodies in three different ways: in an analogy to the gasoline which cars consume, in "The Fat Game," a television spoof, and in an easy to understand scientific explanation. Specific suggestions are made about ways to regulate our weight and how to translate this knowledge into action.

CHANGING FOODS IN CHANGING TIMES (16 minutes) - Modern Talking Picture Service, 1977

Produced by the Cereal Institute, this film describes the effects of changing work patterns and lifestyles on food choices and breakfast and demonstrates the importance of quick-to-serve foods. Presented in a fast-paced documentary style, it uses breakfast cereals as an example and responds to frequently asked questions about these foods. The film encourages understanding and use of nutrition information on labels as an aid in choosing foods. Participating professionals in food, nutrition and health share facts and perspectives that can aid understanding of key food-related matters.

CONSUMER AND THE SUPERMARKET (THE) (15 minutes) - Barr, 1976 FILM GUIDE #4

The supermarket offers convenience and a ready source of everything we need. But because of the thousands of products -- how do we determine what to buy? The film provides special tips to help the shopper buy for maximum nutritional value at the lowest possible cost.

DAY MILK WAS TURNED OFF (THE) (26½ minutes) - Association-Sterling, 1973

This film is an amusing, entertaining demonstration on one of the most power-packed foods available--milk. Featuring a small dairy farmer and a banker, the exposition develops from a nightmare over the disappearance of milk supplies. Appartitions representing the various nutrients in dairy products stress the importance of each to the diet while other characters describe the disaster that would overtake other industries should milk become totally unavailable.

EATING ON THE RUN FILM (THE) (16 minutes) - Alfred Higgins Productions, Inc., 1975 FILM GUIDE #1

We are a nation of people in a hurry. We work on the run, we play on the run, and unfortunately, many of us don't take the time to eat properly. A donut or roll for breakfast, a quick, unbalanced lunch, and "empty calories" snacks are the kind of eating that does not give the body the kind of nourishment it needs to function properly. Yet the answer to the problem is really very simple -- food . . . the right kind. One can be properly nourished when eating in a hurry.

FOOD: THE STORY OF THE PEANUT BUTTER SANDWICH (13 minutes) - Learning Corp., 1971 FILM GUIDE #9

The popularity of the humble peanut butter sandwich leads to an inquiry into food processing, its mechanics and economics. A group of school children have devised a contest for themselves -- whoever makes the most unusual sandwich combination will be the winner -- provided the concoction is also edible! With the film-maker-as-uninvited-guest posing questions to the children, and a comic early-film-style sequence filling in some historical blanks, the story of peanut butter from field to supermarket shelves is detailed. Manufacture, marketing, geographic and cultural factors, and those inexplicable human preferences are all considered. The success story of peanut butter is dramatized through interviews with the man on the street, as well as factory scenes and animation sequences.

GAMEPLAN: LIFE (17 minutes) - Abbott, 1974

Actor-dancer Donald O'Conner and Detroit Tigers relief pitcher John Hill--both heart attack victims--are featured in this film on prevention of heart attacks through a balanced, controlled diet, regular medical checkups, no smoking and avoidance of stress-fatigue tension. Presented by the American Heart Association.

LET'S EAT FOOD (35 minutes) - McGraw-Hill, 1976 FILM GUIDE #12

Produced by Capital Cities Television Productions, this film speaks to us about today's eating habits, what they mean to our individual and national health, and how we can encourage good eating without sacrificing good taste. The distinction between "real food" and "processed food"; the relationship between heart disease and cholesterol; excesses of nutrition; nutrition deficiencies in school age children; the role of sugar in tooth decay, coronary disease and diabetes; and guidelines for healthier diets and intelligent ways of breaking bad eating habits are all covered in this film.

LOOK BEFORE YOU EAT (22 minutes) - Churchill, 1978 FILM GUIDE #13

This film is a critical examination of our eating habits and their relationship to our health. Nutritionists comment on the relation of our diet to a number of major diseases, and how advertising and food industry promotion affect our food choices. Some students try for three weeks to reduce their consumption of sugar, salt and fat, and then report on the results. A school board president talks about the success of a program which put nutritious foods in vending machines. The occurrence of sugar, salt and fat in our diet is looked at in detail. A doctor urges putting aside junk foods and eating right in order to maintain long term fitness and good health.

NUTRITION IS (25 minutes) - West Glen, 1975 FILM GUIDE #11

This is a film on health and nutrition of interest to students and educators alike--much more than just a review of the "Basic Four." The film takes a lively look at modern America's eating habits--their pitfalls and possibilities--and suggests beneficial changes that can be made within the context of today's lifestyle.

SNACKS COUNT TOO (10 minutes) - Journal, 1975 FILM GUIDE #8

What you eat makes a difference. Proper nutrition is still a problem, not of just our pocketbooks but also of our judgment. This film examines the factors that lead to excess snacking and the nutritive elements of popular snack foods. It is suggested that each of us develop a policy on snacks as part of an overall food policy, and a good policy means planning. Remember snacks count, too.

A SONG OF ARTHUR (21 minutes) - Association-Sterling FILM GUIDE #2

A light-hearted, Broadway-type musical designed for popular and professional use as an aid to educating people to hazards of obesity and overweight. Bright, bouncy musical numbers are used to encourage and motivate persons to prevent overweight before it becomes a major problem. The film stresses these steps to weight control: medical supervision of weight reduction programs, setting weight goals, re-training eating habits and getting more exercise.

SOOPERGOOP (13 minutes) - Churchill, 1978

This film, a fast animated story in which two irreverent characters concoct a TV commercial for a "sweee-e-t" cereal, reveals selling techniques and commercialism behind the fun.

SUGAR CEREAL IMITATION ORANGE BREAKFAST (THE) (8 minutes) - Benchmark, 1975 FILM GUIDE #6

Efron Marshall, the comedian, shows kids how to choose all the sugar-coated cereals so they can have dessert for breakfast. He uses Sugar-pops, Fruit-loops and others to concoct a "fruit salad" with gum-drops, tells kids to ignore warnings about cavities (their friends won't care), and suggests that mom never has time to read the labels anyway. The second half of the film examines and compares simulated orange drinks (like Awake, Tang, etc.) with real juice, to give us insight into devious advertising methods.

SUPERJOCK (15½ minutes) - Journal, 1978

An overweight, middle-aged ex-athlete and his equally overweight, but unathletic son are the main characters in the film. They are presented with the overwhelming evidence that improper diet, heavy smoking, and lack of exercise greatly diminish one's sense of well being and seriously endanger one's life. On the positive side, they see the dramatic results achieved by a family friend who, under doctor's advice and supervision, kicked the smoking habit and undertook a rigid dietary and exercise program. Finally, they recognize the importance of good health and are motivated to begin a pattern of life that will achieve it.

THREE TIMES A DAY (25 minutes) - Association-Sterling, 1970 FILM GUIDE #3

A nation of people who have never been weaned! That is one reason given by a member of the Chicago Health Research Foundation for one out of four Americans in the 55-62 age group suffering a coronary--in medical terms, an occulsion of a coronary artery by a blood clot, often leading to destruction of the heart muscle. Fat builds up in an artery and the internal wall becomes roughened leading to clotting. Based on the erroneous premise that a fat baby is a healthy baby, parents have fed them rich dairy products which have been continued as part of their regimen, thus fostering many bad eating habits. That up to 70% of Americans should take steps to lower their cholesterol level is evidenced through the results of projects in such countries as Southern Italy and Greece where the number of deaths through heart disease is one third less than in the United States. "Three Times a Day" concludes with advice on good eating habits, how to continue enjoying mouth-watering favorites without rich additives, and the warning that the use of some substitutes as a cure is worse than the disease.

WAISTLAND (THE) (27 minutes) - Association-Sterling

This TOPS Club, Inc. (Takes Off Pounds Sensibly) film deals with the myths and fads, which for centuries have promised easy solutions to weight problems. Interviews with prominent nutritionists and medical educators enlighten viewers about obesity and metabolic problems, including research sponsored by TOPS.

WHO NEEDS MEAT? (29 minutes) - Films, Inc., 1978

Who needs meat? No one, according to this report. Research has shown that the key to health is balanced nutrition, not a particular food. To explain the nutritional objectives of a balanced vegetarian diet, host Gregory Jackson interviews Maudene Nelson, of Columbia University's Institute of Human Nutrition, who provides menus for three vegetarian meals. The film includes a segment comparing prices of organic/natural foods purchased in a health food store to prices of similar foods purchased in a chain market. This is not an "anti-meat" film; it simply points out that a vegetarian diet can be a healthful diet, providing it is nutritionally balanced.

WHY DOESN'T CATHY EAT BREAKFAST (4 minutes) - Association-Sterling, 1973

Cathy, a thirteen-year-old girl of Fillipino-American descent, never eats breakfast. Curious to find out why, the narrator of the film questions her, attempting at first to find the answer in terms of familiar traditional reasons, but becoming more open and creative as the film progresses. The situation is touched with humor, as Cathy eludes the questions placed to her. The film ends without providing a definite solution to the title question, which leaves the subject wide open to lively classroom discussion and creative explorations into further possibilities on the part of the students.

INSTRUCTIONAL AIDS

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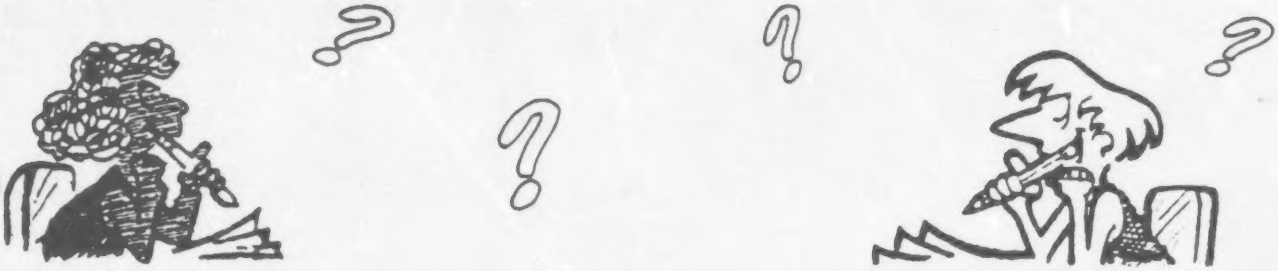

Eater's Digest

CHOOSE THE BEST ANSWER FOR EACH STATEMENT OR QUESTION.

1. Which of the following is a possible problem with the average American's diet?
    - A. Not enough roughage is eaten.
    - B. One-third of the diet is made up of high-fiber foods.
    - C. Americans don't miss as many meals as they should.
    - D. Foods with high sugar content that give energy are eaten far less often than in former years.

2. Which of the following diseases do doctors believe can be brought on from being overweight?
    - A. Dental Decay
    - B. Diabetes
    - C. Anemia
    - D. Throat Cancer

3. Which type of cancer has been linked to the high-fat/low-fiber American diet?
    - A. Bone Cancer
    - B. Cancer of the Colon
    - C. Cancer of the Liver
    - D. Cancer of the Lung

4. Which of the following substances has been found to lead to hardening of the arteries and heart disease?
    - A. Salt
    - B. Food fiber
    - C. Cholesterol
    - D. Unsaturated fat

5. Saturated fat
    A. is liquid at room temperature.
    B. comes mainly from animal sources.
    C. comes mainly from vegetable sources.
    D. is healthier for you than unsaturated fat.

6. Roughage is the
    A. undigestible part of a plant.
    B. gristle or cartilage in meat products.
    C. ingredient in food that is rough on the stomach.
    D. ingredient in food that has been linked to stomach cancer.

7. A diet too rich in salt
    A. may lead to high blood pressure.
    B. is used to help prevent high blood pressure.
    C. will cause the body to pass too much fluid.
    D. is needed by young people aged ten to sixteen.

8. A diet too rich in sugar
    A. may lead to tooth decay.
    B. may lead to hypertension.
    C. will cause the body to retain too much fluid.
    D. will cause the body to digest roughage quickly.

9. A benefit claimed for sugar in foods is that it
    A. increases the appetite for better foods.
    B. is one of the more expensive sources of food energy.
    C. provides all of the carbohydrate needs of the body.
    D. is a nutrient because it is a digestible carbohydrate.

10. What are the names of the groups in the Basic Four Food Groups?
    A. Calcium, carbohydrates, iron, protein
    B. Bread-cereal, dairy, fruit-vegetable, meat
    C. Calorie, cholesterol, saturated, unsaturated
    D. Carbohydrates, minerals, protein, vitamins

11. Which of the following meals is balanced in terms of the Basic Four Food Groups?
    A. Ham, eggs, grits, and toast
    B. Chicken, carrots, peas, and milk
    C. Fish, grits, peas, and milk
    D. Spaghetti, meatballs, salad, and garlic bread

12. Which nutrient below helps the body build and maintain tissues?
    - A. Iron
    - B. Iodine
    - C. Protein
    - D. Ascorbic acid

13. Which nutrient below helps the body make hemoglobin and helps cells use oxygen?
    - A. Iron
    - B. Protein
    - C. Thiamine
    - D. Carbohydrates

14. Which nutrient below helps the body use fat and supplies energy--thereby saving protein for body building and repair?
    - A. Iron
    - B. Niacin
    - C. Vitamin A
    - D. Carbohydrates

15. One possible nutrition problem of fast-food meals is that
    - A. iodine, a vital nutrient, is processed out completely.
    - B. almost all of the meals have too many calories.
    - C. they contain many more nutrients than the body can use.
    - D. they are digested so quickly, the body is unable to get all of the food's nutrients.

16. Food consumers should be careful of food product advertising because
    - A. most advertised food has little nutritional value.
    - B. food manufacturers can't insure that their food is safe to eat.
    - C. food ads always present nutrition facts for making wise decisions.
    - D. food advertisers may be appealing to your "emotions" in order to sell their products.

NAME ______________________________

CLASS ______________________________

DATE ______________________________

Eater's Digest

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16 Ⓐ Ⓑ Ⓒ Ⓓ

What's Your Nutrition I.Q.?

ACCORDING TO SURVEYS CONDUCTED BY THE FOOD AND DRUG ADMINISTRATION, MANY CONSUMERS HAVE MISTAKEN NOTIONS ABOUT VARIOUS ASPECTS OF A BALANCED DIET. LET'S SEE HOW MUCH YOU KNOW!

CHECK TRUE OR FALSE:

TRUE FALSE

_____ _____ 1. All you need to do for proper nourishment is simply to eat a variety of foods.

_____ _____ 2. People who do not eat meat, poultry, or fish can still stay healthy.

_____ _____ 3. Snacks eaten between meals can be just as good for health as food eaten at regular meals.

_____ _____ 4. Fresh vegetables cooked at home are always more nutritious than convenience ones, including canned and frozen vegetables.

_____ _____ 5. A diet high in protein and low in carbohydrate intake is ideal for losing weight.

_____ _____ 6. When trying to lose weight, avoid starchy foods, such as potatoes and bread.

_____ _____ 7. If you weigh what is suggested for your age, height, and bone structure, then you're getting proper nourishment.

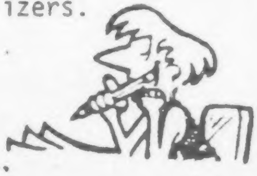
_____ _____ 8. Taking extra vitamins beyond what is suggested by the RDA's (Recommended Daily Allowances) will not give you more pep and energy.

_____ _____ 9. If you do take extra vitamins, it is better to take supplements of natural vitamins than supplements of synthetic vitamins.

_____ _____ 10. Older people need the same amount of vitamins as younger people.

_____ _____ 11. Food grown in poor, worn-out soil does not contain as many vitamins as food grown in rich soil.

_____ _____ 12. Food produced with chemical fertilizers is just as nutritious as food grown with natural, organic fertilizers.



42-01

ATTITUDE SURVEY

✓ PLACE A CHECK BEFORE EACH APPROPRIATE RESPONSE FOR YOU:

1. Given a choice of the foods listed below, which one would I most likely choose for a snack?

____an orange ____a candy bar ____a cupcake ____a piece of cheese

2. How much soda do I drink a day?

____none ____1 bottle/can ____2-4 bottles/cans ____4 or more

3. I _____am _____am not concerned about my weight.

4. When I go to eat with my friends, I would choose to eat:

____pizza ____hamburger ____milkshake ____ice cream ____salad

_____other (write in your choice:____)

5. When I have free time, the activity I like best is

____playing sports ____reading ____sleeping ____talking on the phone

____watching TV _____helping around the house ____other (hobbies, etc.)

6. What I eat and when I eat are most influenced by

____friends ____my family ____television ____myself ____other

7. I believe that the major cause of poor nutrition is

____poverty ____ignorance ____bad eating habits ____television

8. At dinner, the food I usually eat the most of is

____bread ____potatoes ____meal/fish/poultry ____dairy products

____ dessert ____vegetables (including salads)

9. For breakfast, I usually eat

_____ prepared cereals _____a cooked breakfast ____nothing

_____just toast/doughnut, etc. with coffee ____other

10. If I have a choice of something to drink, I most often choose

____soda ____milk ____juice ____tea/coffee ____water ____other

PICTURES OF NUTRITION

Depending upon confidence in your artistic ability, draw a picture of GREAT and Mal nutrition in America in the spaces below. You may choose instead to do a collage, clipping pictures from magazines and pasting them together to offer a message. Discuss your messages.

GREAT NUTRITION IN AMERICA

MAL NUTRITION IN AMERICA

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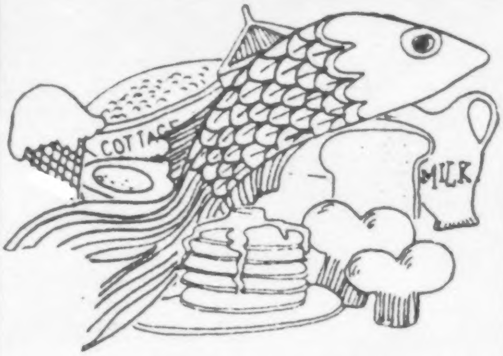


America is the land of plenty--plenty of food! But that in itself is no guarantee against poor nutrition. Not all Americans are well nourished. Many people do not eat enough iron, calcium, or vitamins.

How can YOU be sure you're getting the right nutrients? You probably aren't if you're skipping breakfast--or any other meal. A steady diet of hot dogs, soft drinks, hamburgers, french fries, and "thick" shakes does not provide all the needed nutrients. We sometimes think we're eating the right foods, but often this just is not the case. Why not start checking your eating habits RIGHT NOW!

Use this activity sheet to find out if you are cultivating the right eating habits. Check off the foods (vitamins and other nutrients) that you are ACTUALLY EATING--not just what's on the table. At the end of the week, look at the score. Are you cheating yourself out of vitamins? proteins? minerals?

DAY-BY-DAY CHECKLIST OF INTAKE OF ESSENTIAL NUTRIENTS

GOOD FOOD SOURCES	Mon.	Tues.	Wed.	Thurs.	Fri.	Sat.	Sun.
Vitamin A Whole milk, butter, fortified margarine, eggs, yellow and leafy green vegetables, liver							
Vitamin B_1 (Thiamine) Whole-grain or enriched bread and cereals, yeast, liver, pork, fish, lean meat, poultry, milk							
Vitamin B_2 (Riboflavin) Milk, whole-grain or enriched bread and cereals, liver, lean meat, eggs and leafy green vegetables.							
Vitamin B_6 (Pyridoxine) Lean meats, leafy green vegetables, whole grain cereals.							
Vitamin B_{12} Liver, kidney, fish, milk, foods of animal origin in general.							
Folic Acid Leafy green vegetables, liver							
Pantothenic Acid Eggs, leafy green vegetables, nuts, liver, kidneys.							
Niacin Eggs, meat, liver and whole-grain and enriched breads and cereals							
Biotin Liver, kidney, eggs, leafy green vegetables							
Vitamin C Citrus fruits, particularly; other fruits and leafy green vegetables, potatoes							
Vitamin D Vitamin D fortified milk, cod liver oil, egg yolk, tuna, salmon.							
Vitamin E Vegetable oils, whole-grain cereals.							
Vitamin K Leafy green vegetables							
IRON Meat, liver, egg yolk, green leafy vegetables							
CALCIUM Milk, cheese, eggs, fish, whole-grain cereals.							
PROTEIN Eggs, fish, meat, poultry, cheese, milk, beans							

Food Scoring

Nutrition Scoreboard details a food scoring system of many common foods. In general, the higher the rating the more nutritious the food. One way to eat a "good diet" is to eat more of the foods near the tops of the charts and less of the foods with low or negative ratings.

A food gains points for nutrients in it, but then loses points for a high fat content or added sugar. However, you must remember the importance of *VARIETY* in the diet because *NO ONE FOOD CONTAINS ALL THE NUTRIENTS YOU NEED!*

EXAMINE THE VARIOUS RATINGS GIVEN BELOW. THEN ANSWER THE QUESTIONS.

PROTEIN FOODS	
BEEF LIVER	172
CHICKEN BREAST	62
TUNA FISH	55
ROUND STEAK, LEAN	53
EGGS	36
HAMBURGER	34
PEANUT BUTTER	17
HOT DOG	6
BACON	4
BOLOGNA	2

FRUITS	
CANTALOUPE	99
WATERMELON	74
ORANGE	68
STRAWBERRIES	50
PINEAPPLE	35
PEACH	29
BANANA	26
PEAR	20
APPLE	12
PLUM	9

BEVERAGES (NON-DAIRY)	
ORANGE JUICE	62
V-8 JUICE	40
TOMATO JUICE	37
TANG	30
APPLE JUICE	7
HI-C	3
COFFEE OR TEA	0
COFFEE WITH SUGAR	-9
KOOL-AID	-55
SODA POP	-92

DAIRY PRODUCTS	
SKIM MILK	49
YOGURT, LOWFAT	44
WHOLE MILK	39
COTTAGE CHEESE	32
SWISS CHEESE	22
CHEDDAR CHEESE	19
AMERICAN CHEESE	16
CREAM CHEESE	0
BUTTER	-3
ICE CREAM	-18

VEGETABLES	
COLLARD GREENS	126
BROCCOLI	116
TOMATO, RAW	69
CARROTS	59
PEAS	36
POTATO, BAKED	32
LETTUCE	28
GREEN BEANS	25
CORN	23
BEETS	13

BREAD, RICE, & PASTA	
RYE BREAD	29
EGG NOODLES	28
WHOLE WHEAT BREAD	26
MACARONI	26
SPAGHETTI	26
WHITE BREAD	22
BROWN RICE	22
HAMBURGER BUN	18
WHITE RICE	16
INSTANT RICE	14

SNACKS	
GRANOLA & MILK	45
ALMONDS	31
RAISINS	13
PRETZELS	10
POTATO CHIPS	8
POPCORN	6
OATMEAL COOKIE	-4
SANDWICH COOKIE	-7
CRACKER JACK	-39
CHUCKLES CANDY	-74

ODDS & ENDS	
WHEAT GERM	10
HONEY	3
CATSUP	2
MARGARINE	-1
COOL WHIP	-4
SALAD DRESSING	-4
COFFEE WHITENER	-5
MAYONNAISE	-7
JELLY	-9
SUGAR	-9

DESSERTS	
CANNED PINEAPPLE	27
APPLESAUCE, UNSW.	9
ANGEL FOOD CAKE	-15
CANNED PEACHES, HEAVY SYRUP	-24
BROWNIE	-30
APPLE PIE	-40
GELATIN	-45
CHOCOLATE CAKE	-52
ICE CREAM SODA	-79

1. ADD UP YOUR SCORE FOR THE TEN MOST RECENT FOODS YOU HAVE EATEN THAT ARE LISTED ON THESE CHARTS. WHAT WAS YOUR SCORE?

2. WHAT FOODS COULD YOU HAVE SUBSTITUTED FOR EACH FOOD THAT WOULD HAVE GIVEN YOU A HIGHER NUTRITIONAL RATING?

EVALUATING MY EATING HABITS

KEEP A DAILY RECORD OF EVERYTHING YOU EAT AND DRINK FOR THREE DAYS -- ALSO WHEN YOU EAT IT. TRY TO DETERMINE THE PROPER FOOD GROUPING AND NUMBER OF CALORIES FOR EACH ITEM. (CALORIE CHARTS CAN BE LOCATED IN MANY COOKBOOKS--OR CONSULT YOUR LIBRARIAN.) THEN ANSWER THE QUESTIONS BELOW THAT APPLY TO YOU.

1. What types of foods did I eat most often? ______________________________
2. Did I consume the proper number of servings from each food group daily? ______
   If not, which groups were consistently wrong? ______________________
   Why? ____
3. What is the total number of calories I consumed in "empty" calorie foods or beverages for all three days? ("Empty" implies few, if any, nutrients.) _____
4. How many calories could I have eliminated by cutting out snacks? ____________
5. How many calories could I have eliminated by not eating any desserts? ________
6. Was there one day I consumed a lot more than on other days? _______________
   If so, why? ____
7. How many calories did I add to the three-day total by second helpings? _______
8. How many total calories did I consume each day? _______ _______ _______
   What was my three day total? ________ What was my three day average? ________
9. How many calories a day do I require? _______ (Determine the figure by using the chart shown on page 24 of your student PAL.)
10. How did the average of my daily total of calories consumed compare to the suggested number for my age and sex? ______________________________

    If there was a large discrepancy, what am I going to do about it? (Keep in mind requirements from "The Basic Four.") ______________________________

    ____

    ____
11. Did I consume the required number of servings from each food group? __________
    If not, what am I going to do about it?

____

____

____

Student Activity Sheet #6
Balanced Diet

Fast Foods Take Big Bite Of Market

ANSWER THE FOLLOWING QUESTIONS:

1. In your opinion, why have fast-food restaurants multiplied so rapidly in the past few years?

2. Do you feel fast-food restaurants are contributing positively or negatively to the typical American's diet? Why?

3. Should fast-food restaurants be required to display nutrition information for each item listed on their menu? If so, would such information be used by the typical American buyer? Would you use such information?

We do it all for yo

DISTINGUISHING FACT AND OPINION

When buying products, we find that people are sending us messages that they want us to believe. The first step in deciding whether to believe something is to separate statements of FACT and statements of OPINION.

Let's look at two examples of statements made in a discussion:

1. Effective 1984, federal regulations will require U.S. automobile manufactures to increase by at least twenty-five percent the fuel efficiency of all mass production automobiles.

2. The increase in the fuel efficiency of automobiles will cause more air pollution problems in the world.

The first statement is a factual one (whether it is true or false is a separate question). We can check out that first statement by looking for evidence. The second statement offers an opinion -- the speaker's interpretation or value judgement.

READ THE FOLLOWING STATEMENTS. WRITE *F* BEFORE THOSE WHICH ARE FACTUAL STATEMENTS (WHETHER TRUE OR FALSE). WRITE *O* BEFORE STATEMENTS OF OPINION.

_____ 1. "Vitamins give us extra pep. The more vitamins you take, the more pep you have."

_____ 2. "Fish is in the MEAT GROUP in the BASIC FOUR."

_____ 3. "One can eat ethnic foods--quite different from the usual American diet--and have a sensational, wonderful, healthy diet. But raw fish for breakfast is not my favorite."

_____ 4. "Eat a balanced diet!"

_____ 5. "Eating the basic four is easy."

_____ 6. "You are what you eat!"

_____ 7. "What a child eats today and throughout her life affects the course of her development."

_____ 8. "The big problem with nutrition in America is not the lack of sensational foods, it is Americans' poor eating habits!"

_____ 9. "Iodine helps the thyroid gland to function properly."

_____10. "Ghee, wiz. You drink too much water!"

Student Activity Sheet #8
Balanced Diet

WHAT IS THE AD TELLING ME?

CHOOSE AN ADVERTISEMENT FOR A FOOD OR DRINK PRODUCT. (THE AD MAY BE IN ANY MEDIA--TV, BILLBOARD, MAGAZINE, ETC.) CAREFULLY ANALYZE THE AD AND ANSWER THE FOLLOWING QUESTIONS:

1. What product is being advertised?

2. What is the main message of the ad? How can the product benefit you?

3. State all the facts given about the product.

4. Does the ad appeal to any of your needs, wants, or interests? If so, what are they? How does the ad make its appeals?

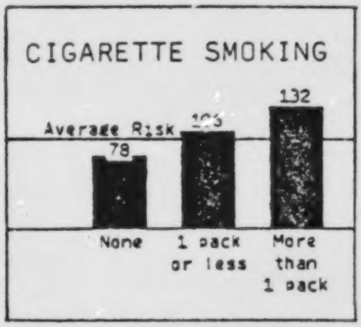
5. Is this ad appealing to a particular group of consumers? If so, who are they? Do you think the ad is effective in "reaching" that particular group?

6. How is the product benefit dramatized (if on TV)...or pictured (if a billboard or magazine ad)...or described (if on radio)?

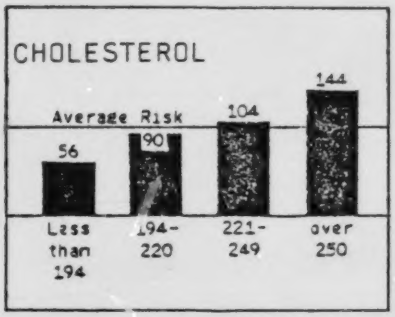
7. Does the ad make you want to try the product? Why?

RISK FACTORS IN HEART ATTACK

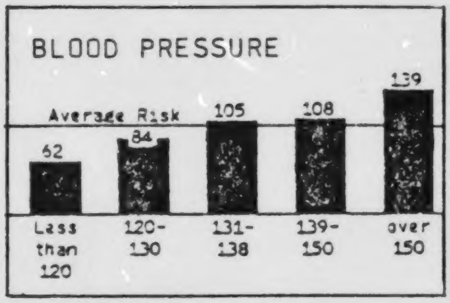
THESE GRAPHS SHOW HOW MUCH CERTAIN RISK FACTORS INCREASED THE DANGER OF CORONARY HEART DISEASE FOR 30- TO 62-YEAR OLD MEN IN FRAMINGHAM, MASSACHUSETTS. COLUMNS BELOW THE BLACK HORIZONTAL LINE INDICATE LOWER-THAN-AVERAGE RISK. COLUMNS ABOVE THE LINE INDICATE HIGHER-THAN-AVERAGE RISK. STUDY THE GRAPHS CAREFULLY. THEN FILL IN THE BLANKS WITH WORDS CHOSEN FROM THE LIST BELOW.



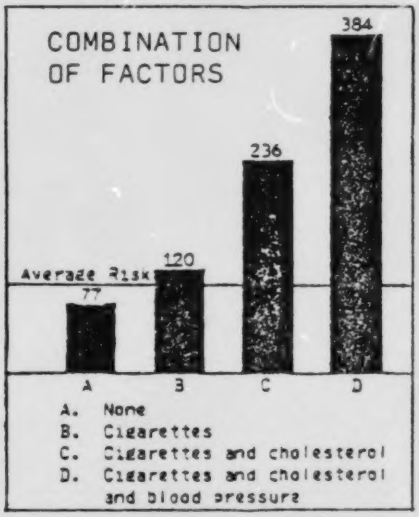
1. A man who smokes more than a pack of cigarettes a day has nearly ______________ the risk of heart attack of a non-smoker.



2. A man with a blood cholesterol measurement of 250 or above has about ______________ times the risk of heart attack of a man with cholesterol below 194.



3. A man whose blood pressure is over 150 has more than __________ times the risk of heart attack of a man with blood pressure under 120.



4. Combining major risk factors can greatly ______________ the chances of coronary heart disease in a 45-year-old man.

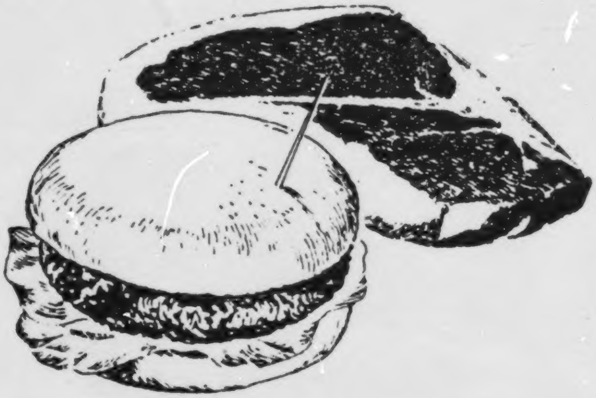
5. According to the graph, the greatest risk of heart attack occurs when you combine the risk factors of ________
____
______________________________.

BLOOD PRESSURE *INCREASE* *TWICE* *FOUR* *CHOLESTEROL* *DECREASE*

CIGARETTE SMOKING *THREE* *TWO*

Student Activity Sheet #10
Balanced Diet

The Measure Of MEAT



People in the U.S. eat more meat than most other people of the world. They also lead the world in cancer, obesity, mortality rate, and degenerative disease.

U.S. yearly beef consumption has increased in the past 25 years from 60 pounds per person to 133 pounds. Poultry consumption has doubled from 25 pounds to 50 pounds. Today, each American eats from 226 to 254 pounds of meat a year. About 71 percent of his diet comes from animal protein while only 29 percent is vegetable.

The Russians get about 20 percent of their protein from animal sources and their health record is better. Their mortality rate is 7.3 per thousand as compared to 9.4 in the U.S. The life expectancy of the Russian male is 70.1 years while the American male's is only 66.7 years.

The average American eats some 18 pounds of meat a month. In Japan, the average person eats about one-half pound.

Not only is meat costly to produce and eat, but Americans eat two to four times as much meat as their bodies can use. As this excess protein is excreted, so is badly needed calcium. Thus vegetarians have a greater bone density than heavy meat eaters. They are also thinner and healthier.

If each person reduced his meat intake by only 10 percent for one year, he would free 10 million tons of grain for other humans. This would feed 60 million people for one year.

Source: "The Politics of Food" Documentary Photo Aids, 1978

READ THE ARTICLE, THEN ANSWER TRUE OR FALSE:

—— 1. Americans eat less meat than most other people of the world.

—— 2. Americans eat about 2 and one-half times as much animal protein as vegetable.

—— 3. Russians eat more animal protein than Americans do.

—— 4. The American male's life expectancy is higher than the Russian male's.

—— 5. Americans eat 36 times as much meat as the Japanese.

—— 6. Excess protein eaten is simply stored for future use.

—— 7. Eating protein helps build up body calcium.

—— 8. Vegetarians have a greater bone density than heavy meat eaters.

—— 9. If Americans reduced their meat eating, more grain would be available for food.

——10. The article suggests that the more meat you eat, the healthier you'll be.

Student Activity Sheet #11
Balanced Diet

Can We Recognize Good and Poor Eating Habits?

BELOW YOU WILL FIND EXAMPLES OF STUDENTS AND THEIR EATING HABITS. BASED ON THE INFORMATION GIVEN, INDICATE WHETHER EACH PERSON HAS GOOD OR POOR EATING HABITS. GIVE AT LEAST ONE REASON FOR YOUR DECISION.

1. Joan thinks she is slightly overweight and has cut out all bread and potatoes from her meals. Two nights a week, Joan goes out with a group of friends. They often end up at the ice cream parlor. Joan just can't refuse ice cream, so on those nights, she skips dinner to save on calories.

2. Jack hates vegetables, but he knows that he needs to eat some sort of a vegetable every now and then. So he sometimes eats a plain lettuce salad with his dinner to make up for not eating other vegetables.

3. Lynn knows that she needs to have a lot of vitamins in her daily diet. She says that it really doesn't matter what she eats as long as she takes a vitamin pill every day.

4. Because of their concern about world hunger and about how much grain is used to produce meat protein, Michelle and her family do not eat meat every day. When meat isn't served, Michelle's parents make sure that bean or cheese dishes are substituted. Michelle doesn't like beans as well as she likes meat, but she eats the beans because of her family's concern about world hunger.

5. Mike is one of the better football players of his school's team. He practices hard every day and is exhausted after practice. Mike's parents work fairly late, and dinner is usually not ready until about 8:00. Mike can't wait that long and has been stopping on the way home for a fried pie, french fries, and a coke. Then he goes home to nap and may sleep through dinner. He often eats his dinner just before going to bed for the night.

6. Maureen does not like the usual breakfast foods at all. She often has a peanut butter and jelly sandwich and milk and fruit for breakfast.

7. Scott is allergic to a number of foods such as eggs, cheese, and milk. He doesn't feel that he needs substitutes for these foods because he eats three full meals a day.

Student Activity Sheet #12
Balanced Diet

Do a Public Opinion Poll

Now that you understand something about the importance of a BALANCED DIET and what nutrients are most important to good health, you might like to see what others think about their eating habits. To do this, you may want to do a public opinion poll.

A public opinion survey is gathering the opinions of a particular group of people on a significant issue. Here you might want to survey high school students in your school, the dispositions of older Americans in your community, the feelings of the people who shop at a particular mall, or even a neighborhood group.

The steps in doing a public opinion poll are:

1. Be informed on the issues you are conducting the survey about. Be ready to explain the purposes of the survey to others.

2. Choose the topic for the survey and make a list of key questions you want to ask. Be brief.

3. Decide how you will tally and REPORT on the survey to others -- newspaper report, news release, TV announcements, etc.

4. Decide who you are going to survey -- what group of people.

5. Decide how you will SAMPLE the group. You do not have to interview everyone, you may speak to one out of ten, or one out of a hundred.....depending upon the size of the group. Look up the word *RANDOM* in the dictionary, and do a RANDOM survey of your target group.

6. Do the survey in a friendly, professional way. Tally the results and report on them!

Sample Survey Questions:

WHAT IS YOUR CONCEPTION OF A BALANCED DIET?

WHAT IS YOUR OPINION ABOUT THE U.S. DIET AND WORLD HUNGER?

WHAT IS YOUR REACTION TO THE DIETARY GOALS FOR THE U.S.?

WHAT IS YOUR OPINION ON FAST-FOOD CHAINS? DO THEY SERVE "HEALTHY" FOOD?

WRITE a press release or a radio spot announcement on your findings.

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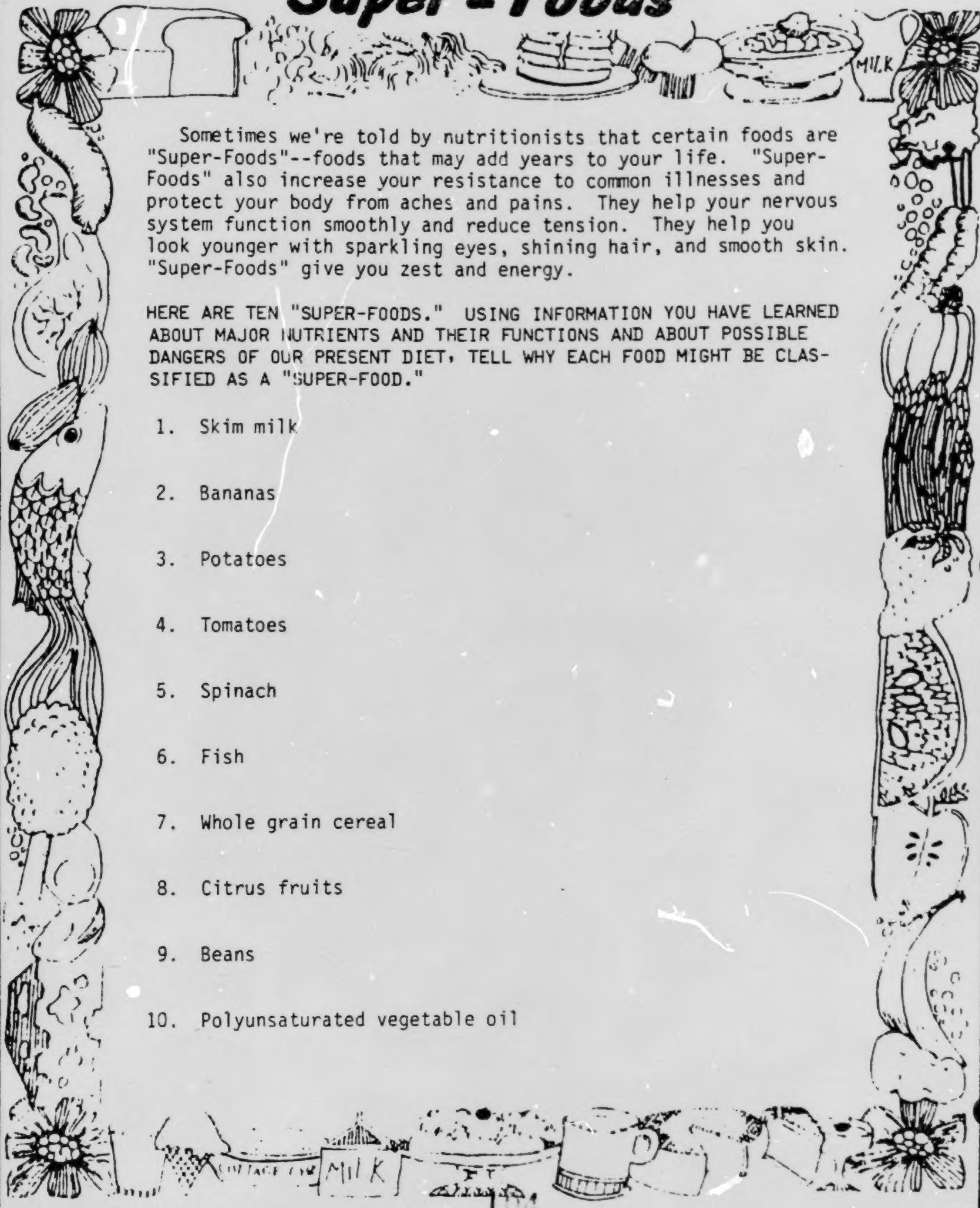
"Super - Foods"



Sometimes we're told by nutritionists that certain foods are "Super-Foods"--foods that may add years to your life. "Super-Foods" also increase your resistance to common illnesses and protect your body from aches and pains. They help your nervous system function smoothly and reduce tension. They help you look younger with sparkling eyes, shining hair, and smooth skin. "Super-Foods" give you zest and energy.

HERE ARE TEN "SUPER-FOODS." USING INFORMATION YOU HAVE LEARNED ABOUT MAJOR NUTRIENTS AND THEIR FUNCTIONS AND ABOUT POSSIBLE DANGERS OF OUR PRESENT DIET, TELL WHY EACH FOOD MIGHT BE CLASSIFIED AS A "SUPER-FOOD."

1. Skim milk

2. Bananas

3. Potatoes

4. Tomatoes

5. Spinach

6. Fish

7. Whole grain cereal

8. Citrus fruits

9. Beans

10. Polyunsaturated vegetable oil

Personal Diets and World Hunger

MOST AMERICANS EAT FAR MORE CALORIES OF FOOD ENERGY EACH DAY THAN OTHER PERSONS IN THE WORLD...FAR MORE THAN THEY NEED TO SURVIVE. MEANWHILE, MANY PERSONS IN THE WORLD COMMUNITY GO TO BED EACH NIGHT HUNGRY, AND OTHER ARE SUFFERING MALNUTRITION. OTHERS SOMETIMES STARVE TO DEATH.

HOW DO YOU FEEL ABOUT HUNGER IN THE WORLD COMMUNITY?

HAVE YOU EVER THOUGHT ABOUT IT?

HAVE THOUGHTS ABOUT WORLD HUNGER AFFECTED YOUR EATING HABITS?

WHAT RESPONSIBILITIES, IF ANY, DO AMERICAN EATERS HAVE TOWARD OTHERS IN THE WORLD WHO ARE HUNGRY--RIGHT NOW AS WE SIT IN OUR CLASSROOMS?

IF WE HAVE ANY RESPONSIBILITIES, WHAT CAN WE DO? WHAT SHOULD WE DO? HOW AND WHEN SHOULD WE DO IT?

Interdependence

MS. JONES GOES INTO THE FOOD STORE AND BUYS A 25-POUND BAG OF CEREAL DOG FOOD FOR ROVER, FIDO, AND LASSIE--HER THREE DOGS. SHE CAN EASILY AFFORD FOOD FOR HER DOGS AND GLADLY BUYS IT.

MEANWHILE, PERSONS IN BANGLADESH ARE HUNGRY AND MALNOURISHED. WHAT DOES MS. JONES CONSUMPTION HAVE TO DO WITH THESE PEOPLE IN BANGLADESH?

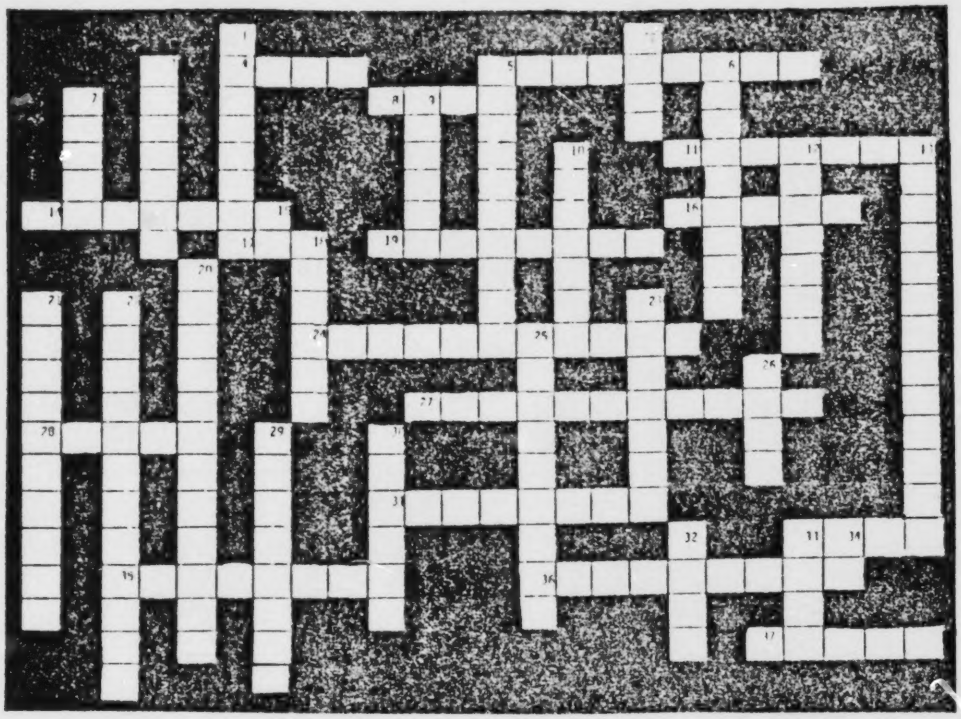
KANSAS WHEAT FARMERS AND ILLINOIS CORN FARMERS PRODUCE GRAIN. OTHER FARMERS FEED GRAIN TO CATTLE, WHICH MR. JONES BUYS AND CONSUMES IN DELIGHTFUL QUANTITIES. HE ENJOYS LONDON BROILS, NEW YORK STRIPS, AND SIRLOIN TIPS. HE HAS WORKED HARD AND CAN AFFORD SUCH MEATS EVEN AT HIGHER PRICES.

MEANWHILE, PERSONS IN PARTS OF INDIA ARE HUNGRY. IS THERE ANY RELATIONSHIP BETWEEN MR. JONES AND THESE HUNGRY PERSONS? HOW? WHAT POSSIBLE RELATIONSHIPS?

CHAT WITH FRIENDS AND PARENTS ABOUT THEIR VIEWS OF POSSIBLE RELATIONSHIPS. DISCUSS THE CASE WITH RELIGIOUS LEADERS IN YOUR COMMUNITY.

BEST COPY AVAILABLE

"Eater's Digest" Words



ACROSS

4. Contributes to high blood pressure
5. Fat mainly from animal sources
8. Food sold quickly over-the-counter is known as ______-food
11. Constant, or lasting a long time
14. Nutrient which builds and maintains tissues
16. Also called roughage
17. An argument against something or someone
19. The act or habit of eating too much
24. A substance which clogs the blood vessels
27. Fat which is liquid at room temperature
28. You need 4 servings daily from the vegetable-   group
31. An element of food which promotes body growth and development and regulates body processes
33. Saturated _______ are hard at room temperature
35. Nutrient which helps keep nerves in healthy condition (alternative spelling)
36. The study of a proper, balanced diet to promote health
37. Good source of carbohydrates

DOWN

1. Nutrient which helps hold body cells together and strengthens blood vessel walls is _______ acid
2. Nutrient which helps make hemoglobin, which carries oxygen to different parts of the body
3. The key to making the Basic Four system work
5. Math facts that are assembled and tabulated in a way that gives information about a subject
6. Method used
7. Carrier of nutrients to, and waste from, cells in the body
9. Means used in an ad to interest or reach the customer
10. A unit for measuring the energy produced by food
12. Medical problem caused from eating too much food
13. Nutrient which supplies food energy and helps the body use fat
15. Opposite of yes
18. Nutrient which helps cells use oxygen to produce energy
20. High blood pressure
21. Nutrient which helps body cells use oxygen to release energy from foods
22. Faulty or inadequate nutrition
23. Having to do with fine foods and drinks
25. Passing away with time, temporary
26. Protein should come from a variety of sources, not just _______
29. Nutrients essential for good nutrition
30. Disease linked to the rich American diet
32. Good source of calcium
33. Number of major food groups
34. One

Student Activity Sheet #15
Balanced Diet

GAZETTE
Sale

Eater's Digest

NOW THAT YOU HAVE COMPLETED THE ACTIVITIES IN THE BALANCED DIET PAL, YOU SHOULD BE ABLE TO:

1. Identify a problem of the average American's diet.
2. Recognize a cause of diabetes.
3. Identify the types of cancer which have been linked to rich diets.
4. Recognize that cholesterol can lead to hardening of the arteries & heart disease.
5. Define saturated fat.
6. Define roughage.
7. Recognize the consequences of a diet too rich in salt.
8. Recognize the consequences of a diet too rich in sugar.
9. Identify a benefit of having sugar in the diet.
10. Identify the basic four food groups.
11. Select balanced meals.
12. Recognize the nutritional value of protein.
13. Recognize the nutritional value of iron.
14. Recognize the nutritional value of carbohydrates.
15. Identify a nutritional problem of fast-food meals.
16. Identify why consumers should be wary of food product advertisements.

film guide: THE EATING ON THE RUN FILM

This film explains the importance of eating well-balanced breakfasts, lunches and snacks. Notice that one can be properly nourished even when "eating on the run."

As you watch this film, or when it is completed, answer the following questions:

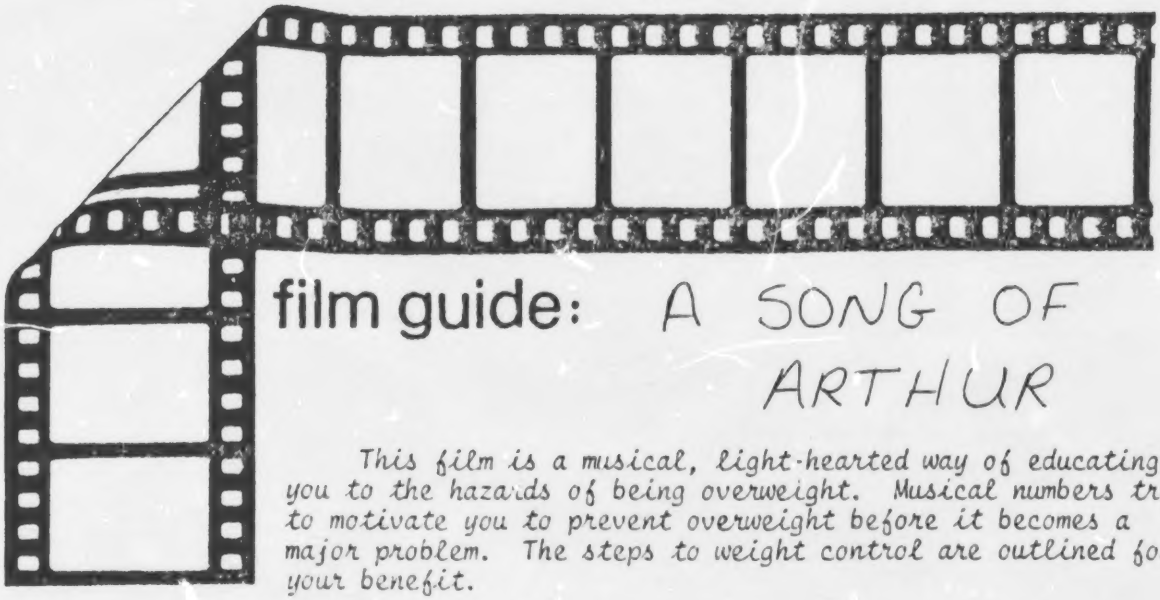
1. What do the Basic Four Food Groups do for us?

2. Why is a nourishing breakfast important?

3. Give three examples of quickly made nutritious breakfasts.

4. How can we improve our lunches when eating out?

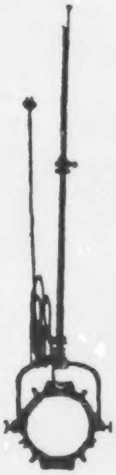
5. List four healthful snacks. Explain why they are better than empty calorie snacks and drinks.



film guide: A SONG OF ARTHUR

This film is a musical, light-hearted way of educating you to the hazards of being overweight. Musical numbers try to motivate you to prevent overweight before it becomes a major problem. The steps to weight control are outlined for your benefit.

As you watch this film, or when it is completed, answer the following questions:



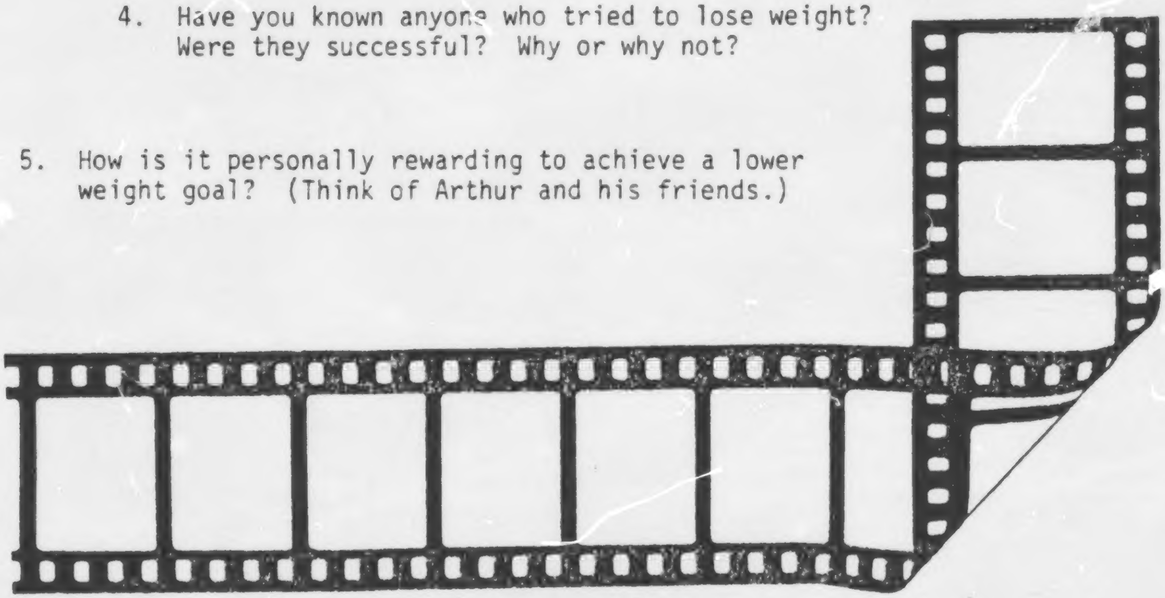
1. What are five good reasons for losing weight?

2. Why do people overeat?

3. What personal character traits does it take to lose weight?

4. Have you known anyone who tried to lose weight? Were they successful? Why or why not?

5. How is it personally rewarding to achieve a lower weight goal? (Think of Arthur and his friends.)



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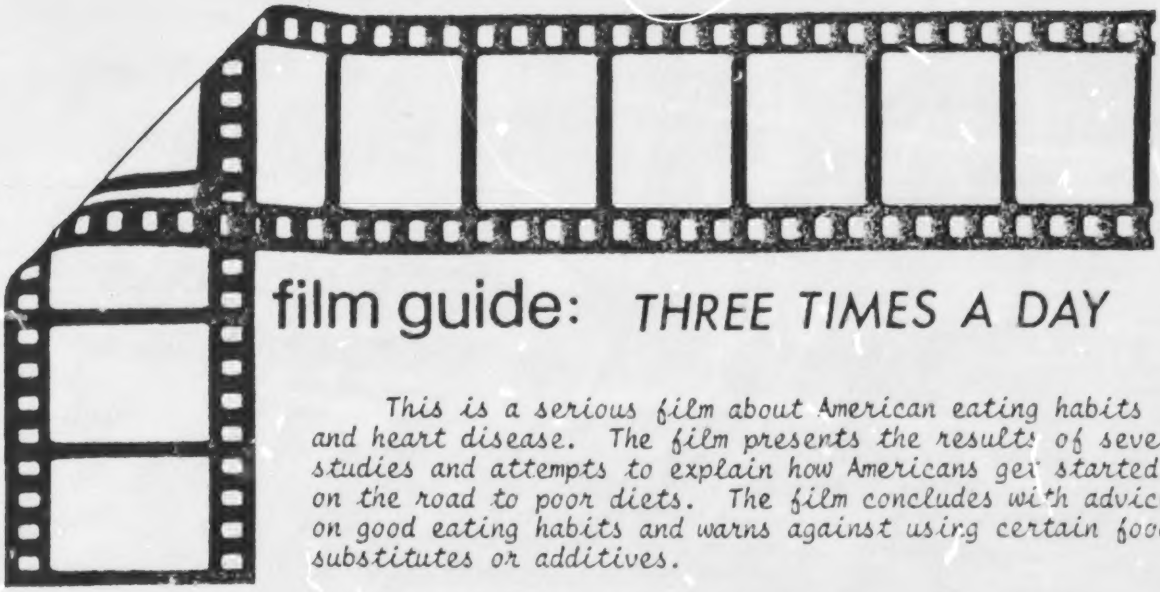


film guide: *THREE TIMES A DAY*

This is a serious film about American eating habits and heart disease. The film presents the results of several studies and attempts to explain how Americans get started on the road to poor diets. The film concludes with advice on good eating habits and warns against using certain food substitutes or additives.

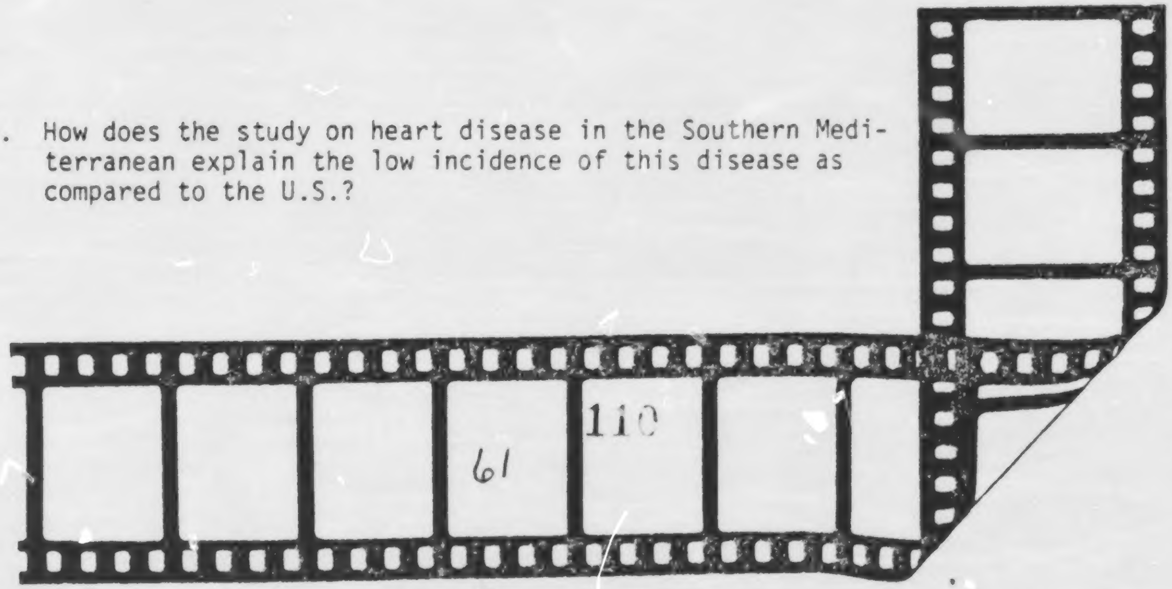
As you watch this film, or when it is completed, answer the following questions:

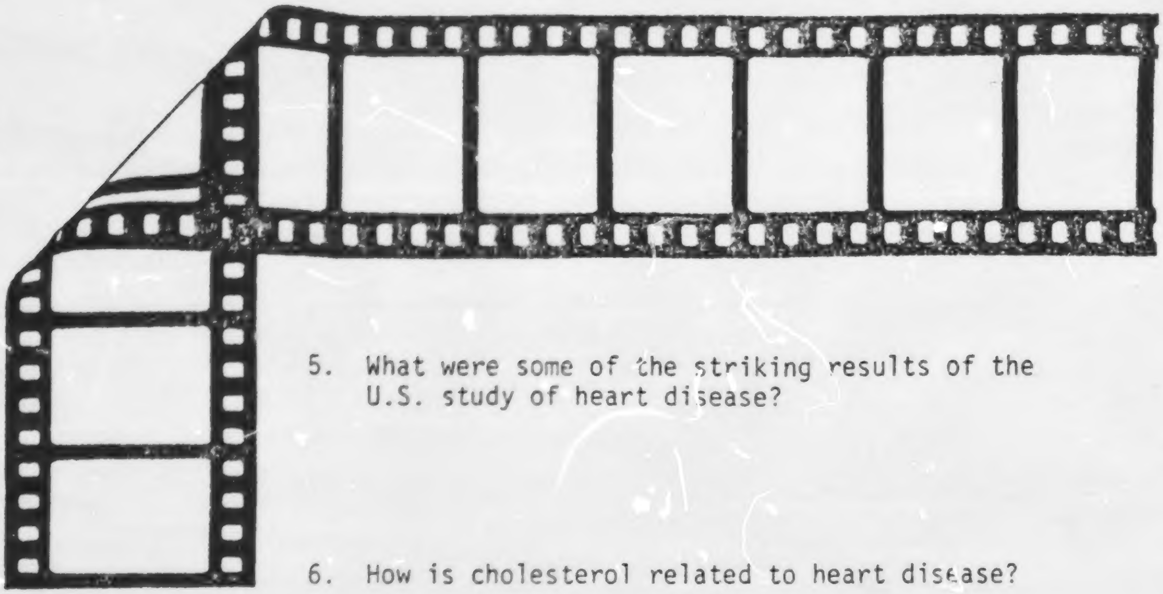
1. What was wrong with the way the people were eating in this film?

2. What common misconception (wrong idea) about a baby's weight is expressed in the film?

3. How can vending machines act as a stimulus to eat incorrectly?

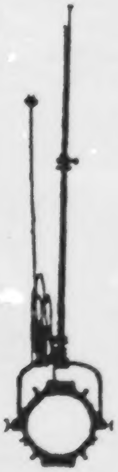
4. How does the study on heart disease in the Southern Mediterranean explain the low incidence of this disease as compared to the U.S.?





5. What were some of the striking results of the U.S. study of heart disease?

6. How is cholesterol related to heart disease?

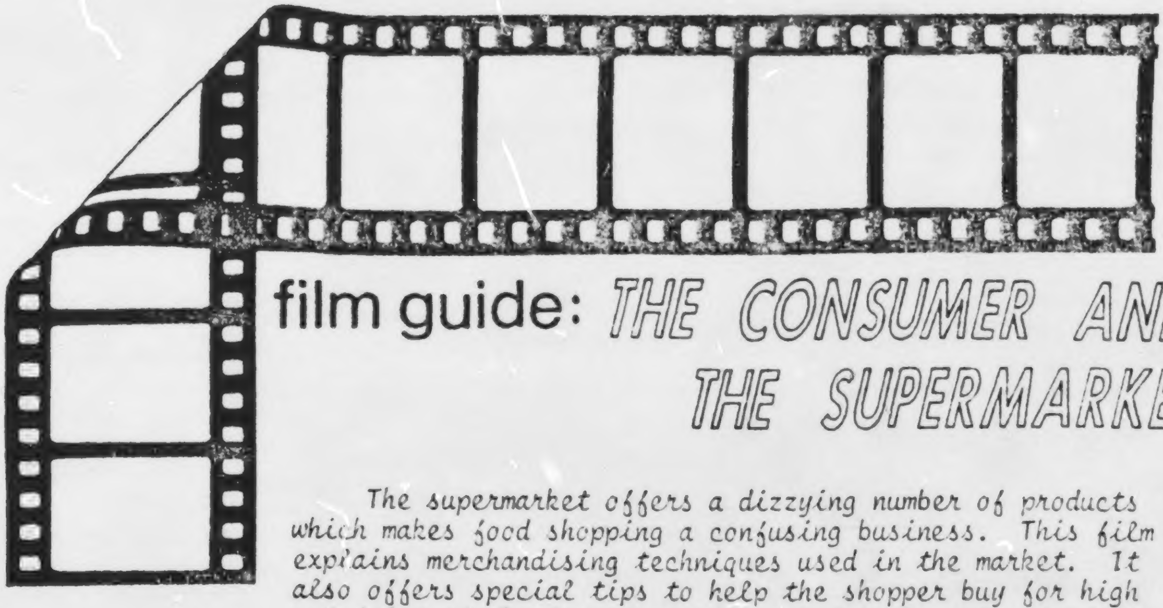


7. What five sources of fat are mentioned in the film?

8. What are the differences between saturated and polyunsaturated fats? Which type should be avoided?

9. What food is mentioned as having more varied recipes than any other food in the world?

10. What is meant by the phrase "a nation of people who have never been weaned?"



film guide: THE CONSUMER AND THE SUPERMARKET

The supermarket offers a dizzying number of products which makes food shopping a confusing business. This film explains merchandising techniques used in the market. It also offers special tips to help the shopper buy for high nutrition at the lowest possible cost. The role of advertising in making food choices is also explored.

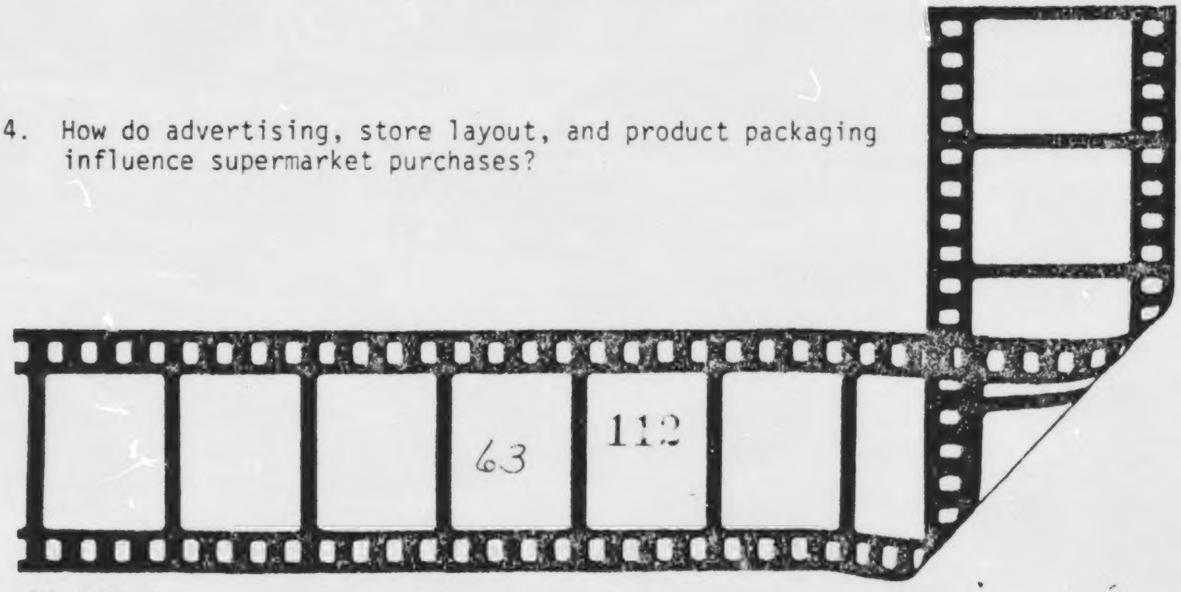
As you watch this film, or when it is completed, answer the following questions:

1. In what way does processing affect both the price and the nutritional value of the foods you eat?

2. All the food in the market can be divided into four basic groups. Explain.

3. What are some techniques consumers can use in the supermarket to make wise nutritional choices?

4. How do advertising, store layout, and product packaging influence supermarket purchases?

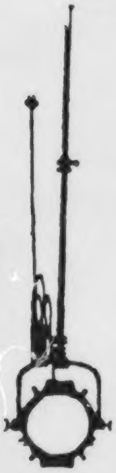


film guide:

The All American Meal

There is more to food than just eating. Our "fast food" culture suggests that perhaps we are losing touch with some of the real values of life. Notice the problems associated with the "quick meal" and the suggestions for improvement. Good nutrition demands an understanding of all of our body's needs and a real concern for good health.

As you watch this film, or when it is completed, answer the following questions:



1. How does food reveal the cultural patterns of people? Discuss some of the characteristics of the cultures and foods shown at the beginning of the film.

2. What do you think the "fast food" craze tells us about ourselves? How does it reflect our concern for speed and mobility? Does the "fast food" stand meet a need?

3. Discuss the nutritional value of the All American Meal--hamburger, fries, and soft drink. How does your favorite hamburger compare with those in the film? How can you improve the "quick meals" you buy at the "fast food" stand?

4. Why is the loss of variety in the diet bad for our health? How can we make sure we obtain the nutrients we need everyday? How is the loss of leisurely companionship around the dinner table harmful?

film guide:

THE SUGAR CEREAL IMITATION ORANGE BREAKFAST

Comedian Marshall Efron, in boy's cap and sweater, gives some inside tips to other kids on how to manipulate Mom into buying those television advertised, heavily frosted, super-sugar, breakfast cereals. Unfortunately, they are low in nutrition and bad for the teeth. Efron also examines imitation orange juice products.

As you watch this film, or when it is completed, answer the following questions:

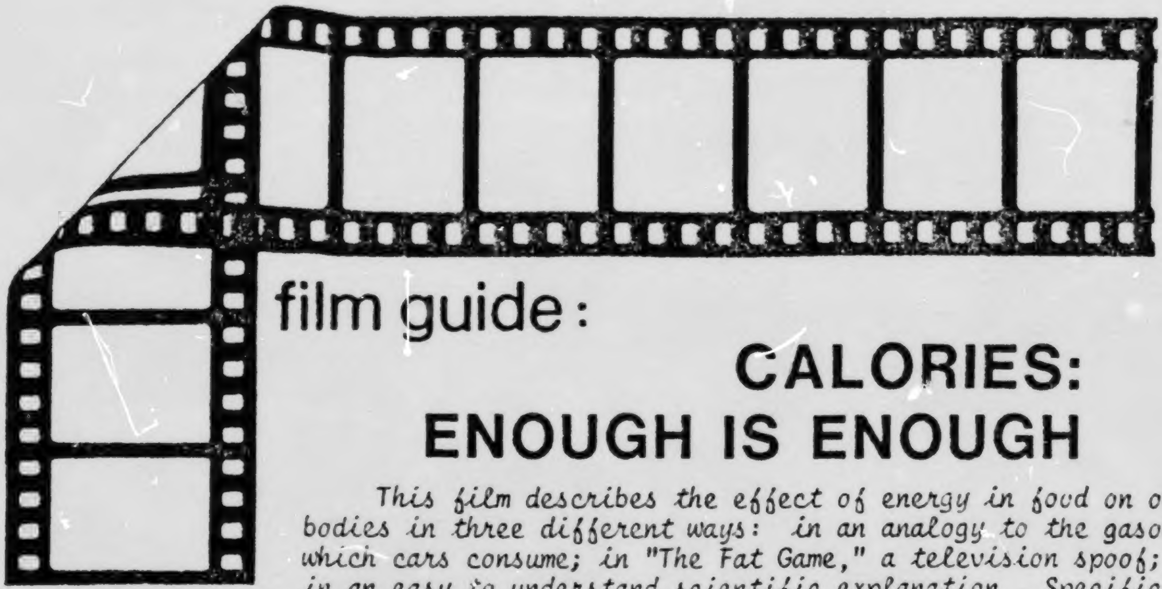
1. Why does Efron describe some breakfast cereals as being "dessert" for breakfast?

2. Name three advertising techniques used by cereal companies to "sell" their products.

3. What is one possible problem caused by consuming too much sugar?

4. Twentieth century alchemists have brought us instant orange juice. Define alchemist.

5. What is the difference between a product labeled orange juice and one labeled orange drink?



film guide:

CALORIES: ENOUGH IS ENOUGH

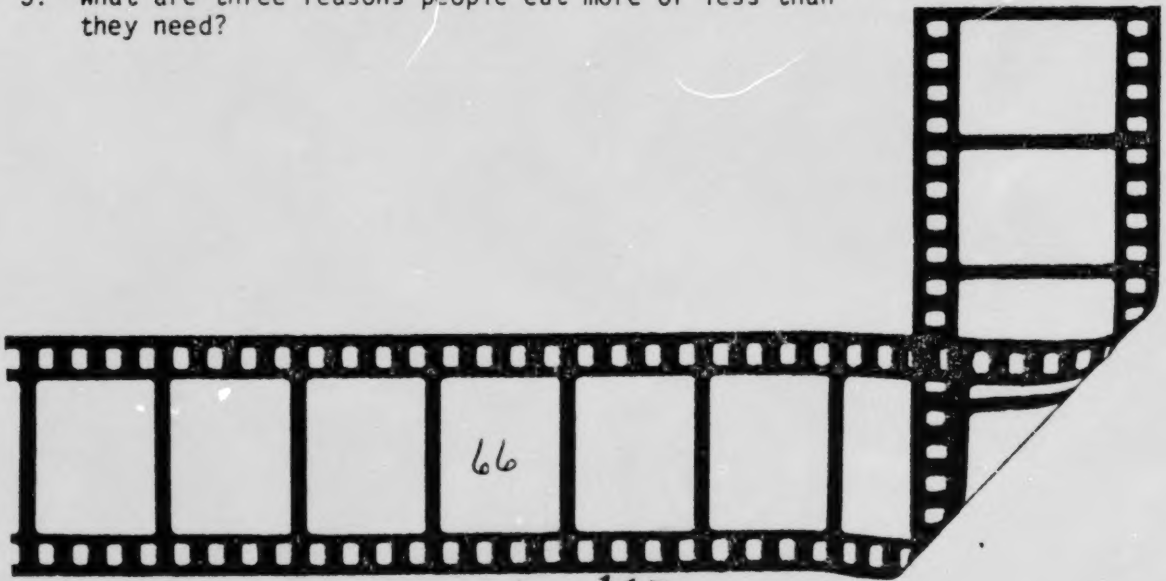
This film describes the effect of energy in food on our bodies in three different ways: in an analogy to the gasoline which cars consume; in "The Fat Game," a television spoof; and in an easy to understand scientific explanation. Specific suggestions are made about ways to regulate our weight and how to translate this knowledge into action.

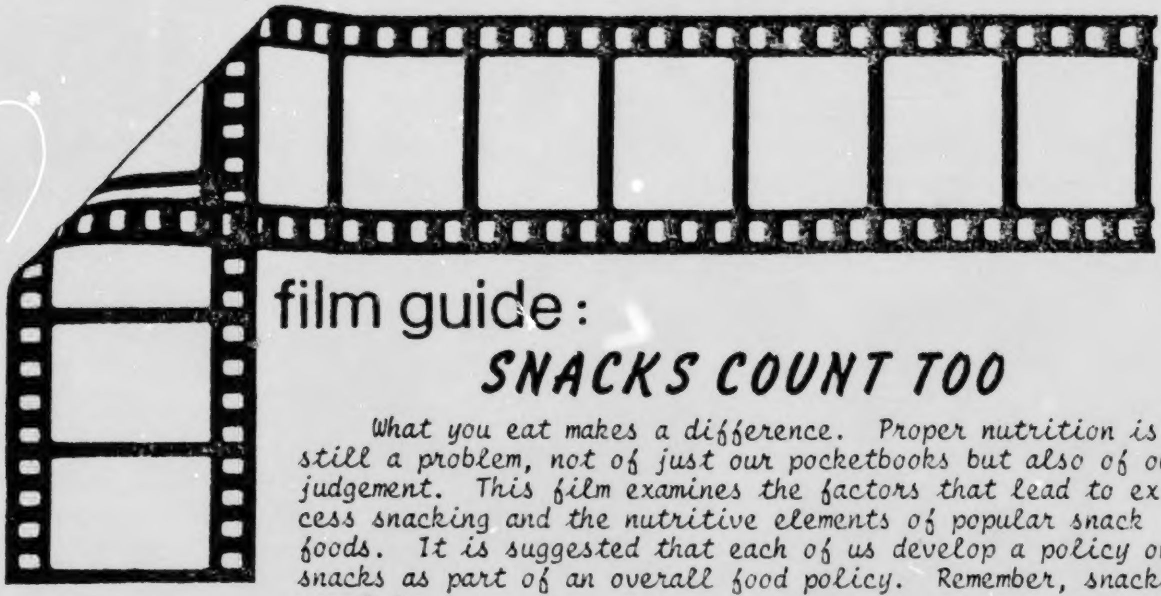
As you watch this film, or when it is completed, answer the following questions:

1. How can you tell if you are taking in more calories than your body needs?

2. What are the short and long run dangers of being too fat? Too thin?

3. What are three reasons people eat more or less than they need?

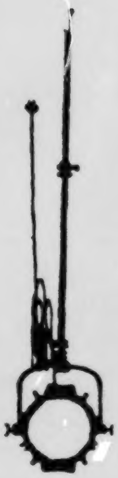




film guide:

SNACKS COUNT TOO

What you eat makes a difference. Proper nutrition is still a problem, not of just our pocketbooks but also of our judgement. This film examines the factors that lead to excess snacking and the nutritive elements of popular snack foods. It is suggested that each of us develop a policy on snacks as part of an overall food policy. Remember, snacks count too.



As you watch this film, or when it is completed, answer the following questions:

1. What is meant by the statement, "Overnutrition is not a problem of our pocketbooks, but of our judgement?"

2. What is a "snack"?

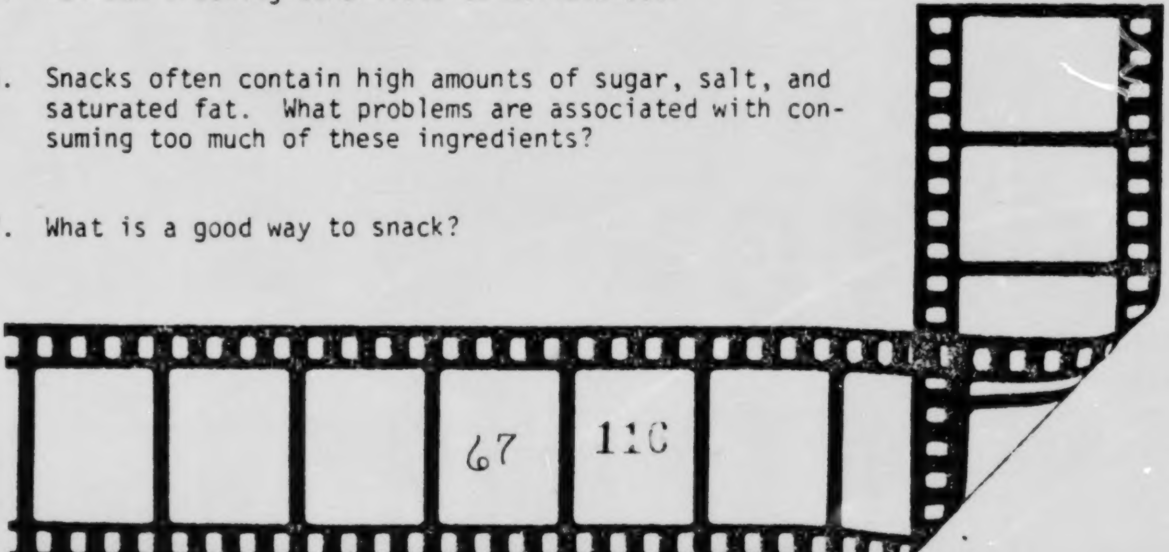
3. Name one problem that could result from too much snacking.

4. Name three times you enjoy a snack.

5. How can snacking contribute to deficiences?

6. Snacks often contain high amounts of sugar, salt, and saturated fat. What problems are associated with consuming too much of these ingredients?

7. What is a good way to snack?



film guide:

Peanut Butter Sandwich

An uninvited guest at a children's party questions the kids about peanut butter, while the children compete in a "most unusual sandwich" contest. With this setting, the children's answers lead to the film's purpose--a look at the food processing of the humble peanut to make peanut butter.

As you watch this film, or when it is completed, answer the following questions:

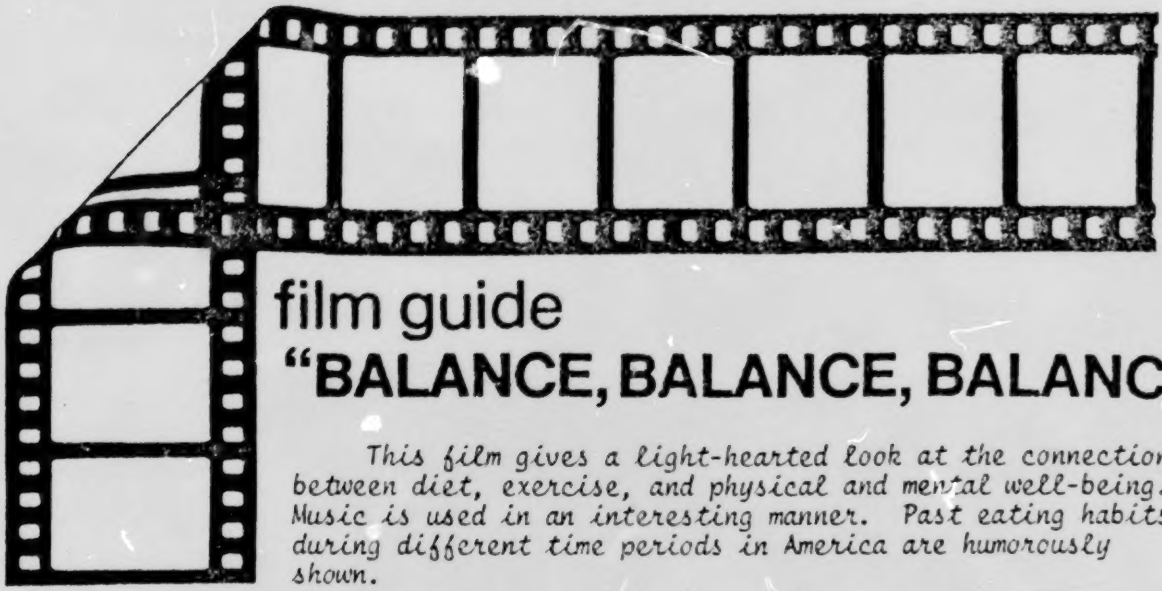
1. What is meant by "processed food?

2. What are the steps in the processing of peanuts?

3. Name some other foods that are factory processed before reaching the supermarket. What are some foods that we eat in their natural state? What is meant by "organic foods"?

4. Why was the man with the suitcase trying to get people to taste his peanut butter? What is market research?

5. Why do people buy one brand of peanut butter rather than another?



film guide

"BALANCE, BALANCE, BALANCE"

This film gives a light-hearted look at the connection between diet, exercise, and physical and mental well-being. Music is used in an interesting manner. Past eating habits during different time periods in America are humorously shown.

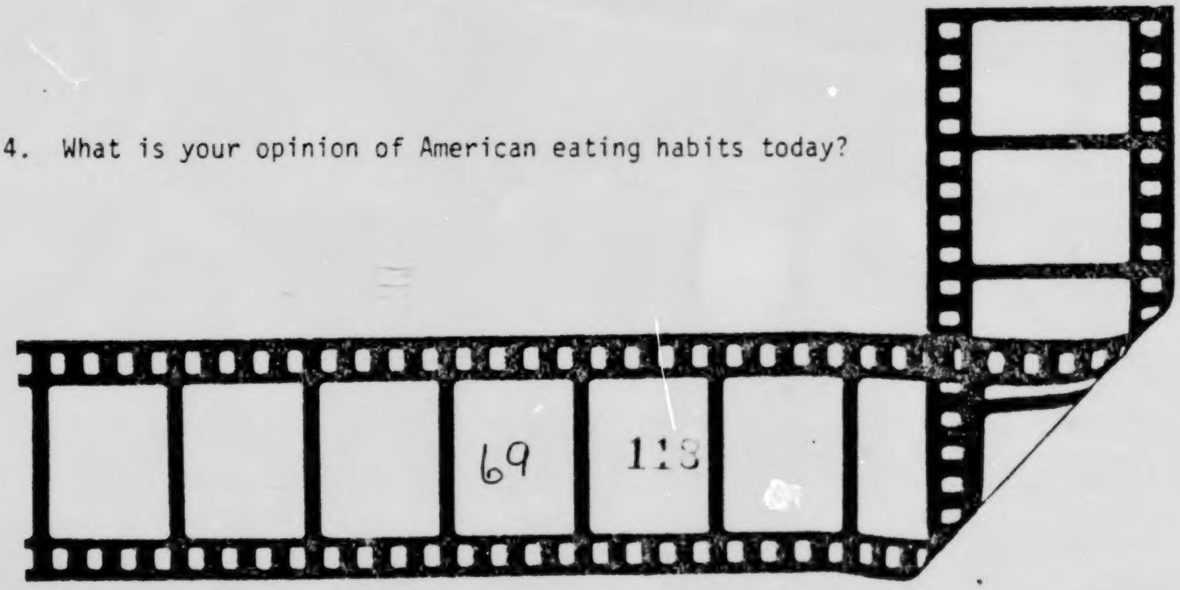
As you watch this film, or when it is completed, answer the following questions:

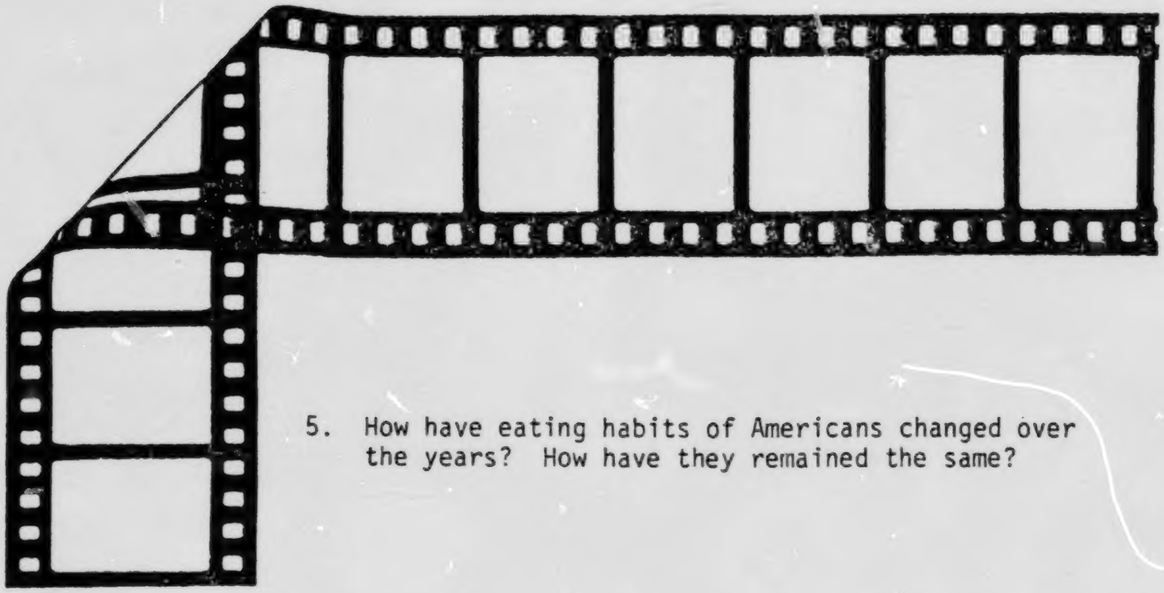
1. What is the meaning of the film's title?

2. What things are stressed as being as important to good health as a proper diet?

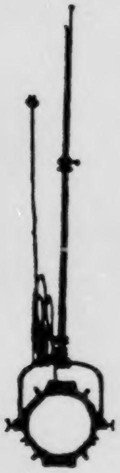
3. Someone who is "sedentary" is used to sitting still much of the time. What is the message of Sedentary Sally?

4. What is your opinion of American eating habits today?





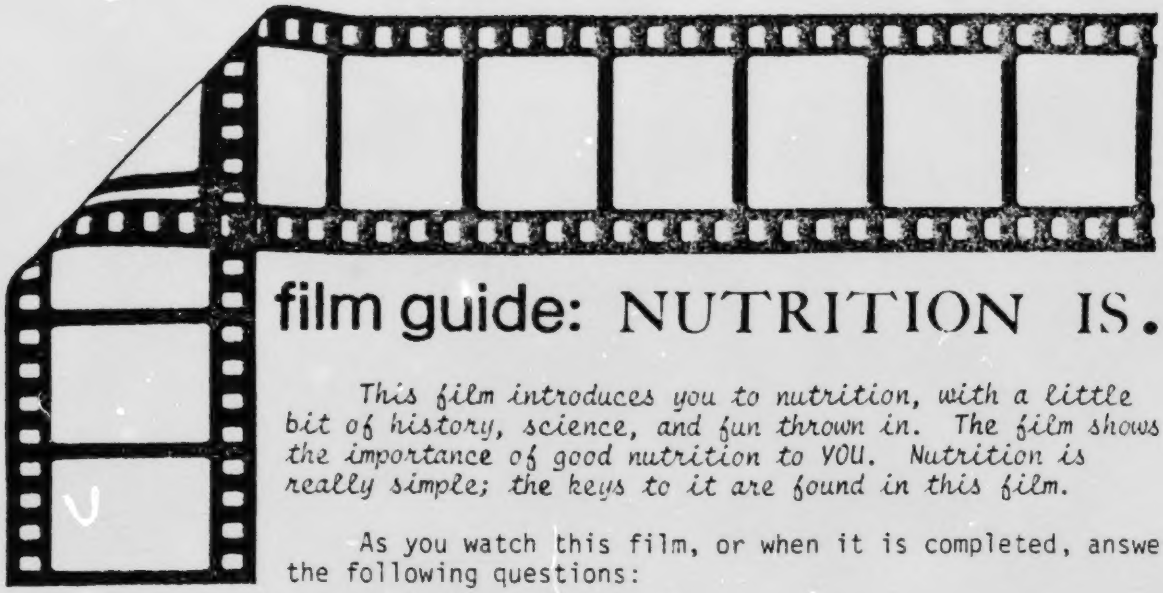
5. How have eating habits of Americans changed over the years? How have they remained the same?



6. What does "nutrition" mean to you?

7. Are there different types of exercise, or is it all the same? Explain.

8. How can participation in an organized sport help a person's mental health?



film guide: NUTRITION IS...

This film introduces you to nutrition, with a little bit of history, science, and fun thrown in. The film shows the importance of good nutrition to YOU. Nutrition is really simple; the keys to it are found in this film.

As you watch this film, or when it is completed, answer the following questions:

1. What is the source of all energy?

2. During some periods of history, the "ideal body" was quite fat by today's standards. Why does a society's concept of a beautiful figure change?

3. List three examples of "fad" diets from the film.

4. Define "malnutrition."

5. In order to maintain your body weight, you must

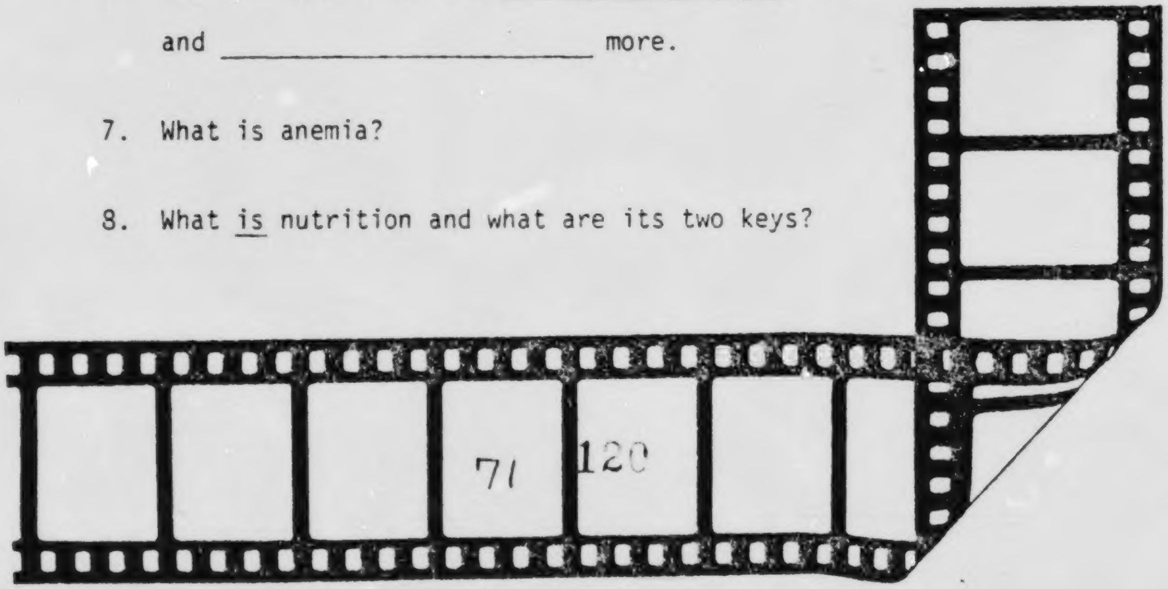
   balance ________________ and ________________.

6. You can lose weight by ________________ less

   and ______________________ more.

7. What is anemia?

8. What is nutrition and what are its two keys?

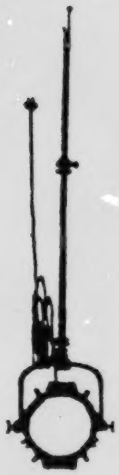


71 120

film guide: **LET'S EAT FOOD**

This film speaks to you about today's eating habits and what they mean to our individual and national health. The film emphasizes that you don't have to sacrifice good taste to enjoy good eating.

As you watch the film, or when it is completed, answer the following questions:

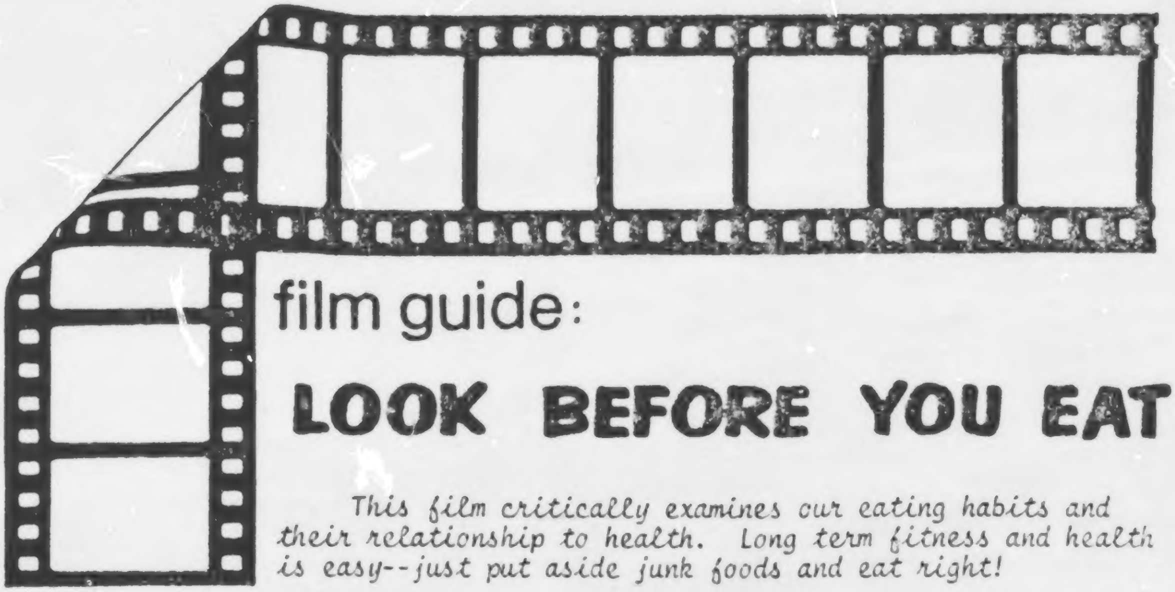


1. Describe at least two or three characteristics of the food environment in the United States today which may influence your food choices.

2. Give two examples of possible links between diet and disease.

3. List some of the foods that some nutritionists believe Americans consume in excessive amounts.

4. Name several nutrition-related health problems of later life which appear to begin in the eating patterns of young people.



film guide:

LOOK BEFORE YOU EAT

This film critically examines our eating habits and their relationship to health. Long term fitness and health is easy--just put aside junk foods and eat right!

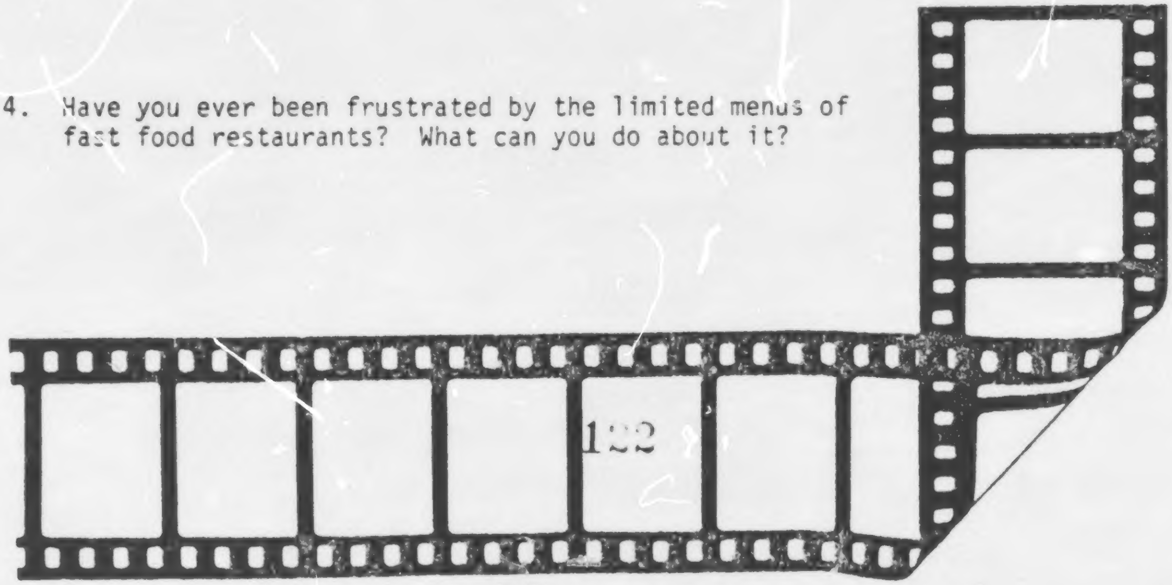
As you watch this film, or when it is completed, answer the following questions:

1. What does the film say about our consumption of sugar, salt, and fat?

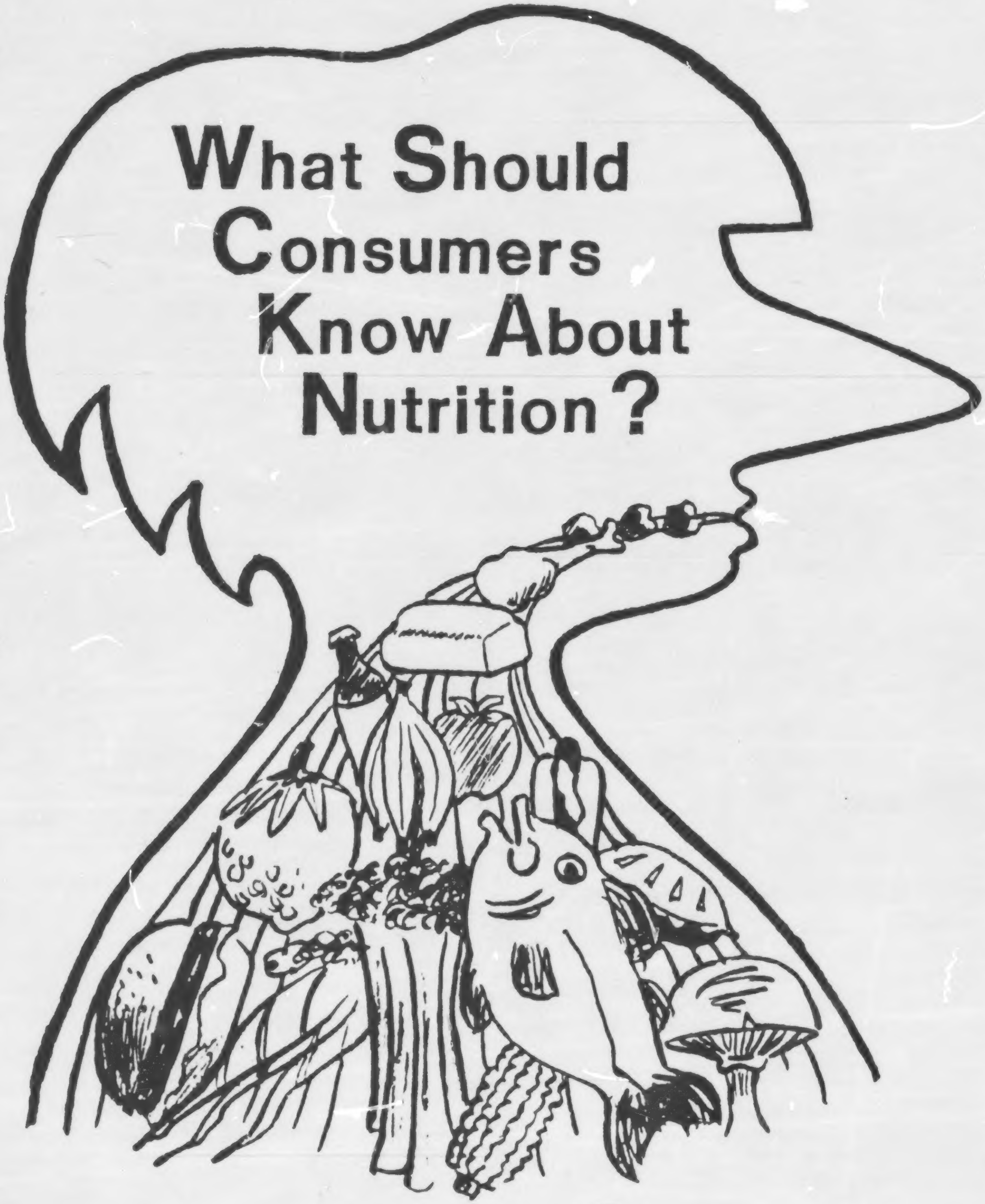
2. What problems do we encounter when we try to change our eating patterns?

3. Many foods high in fat are also very nutritious. In trying to reduce fat intake, what are some foods you might eat less of and what foods do you need to substitute?

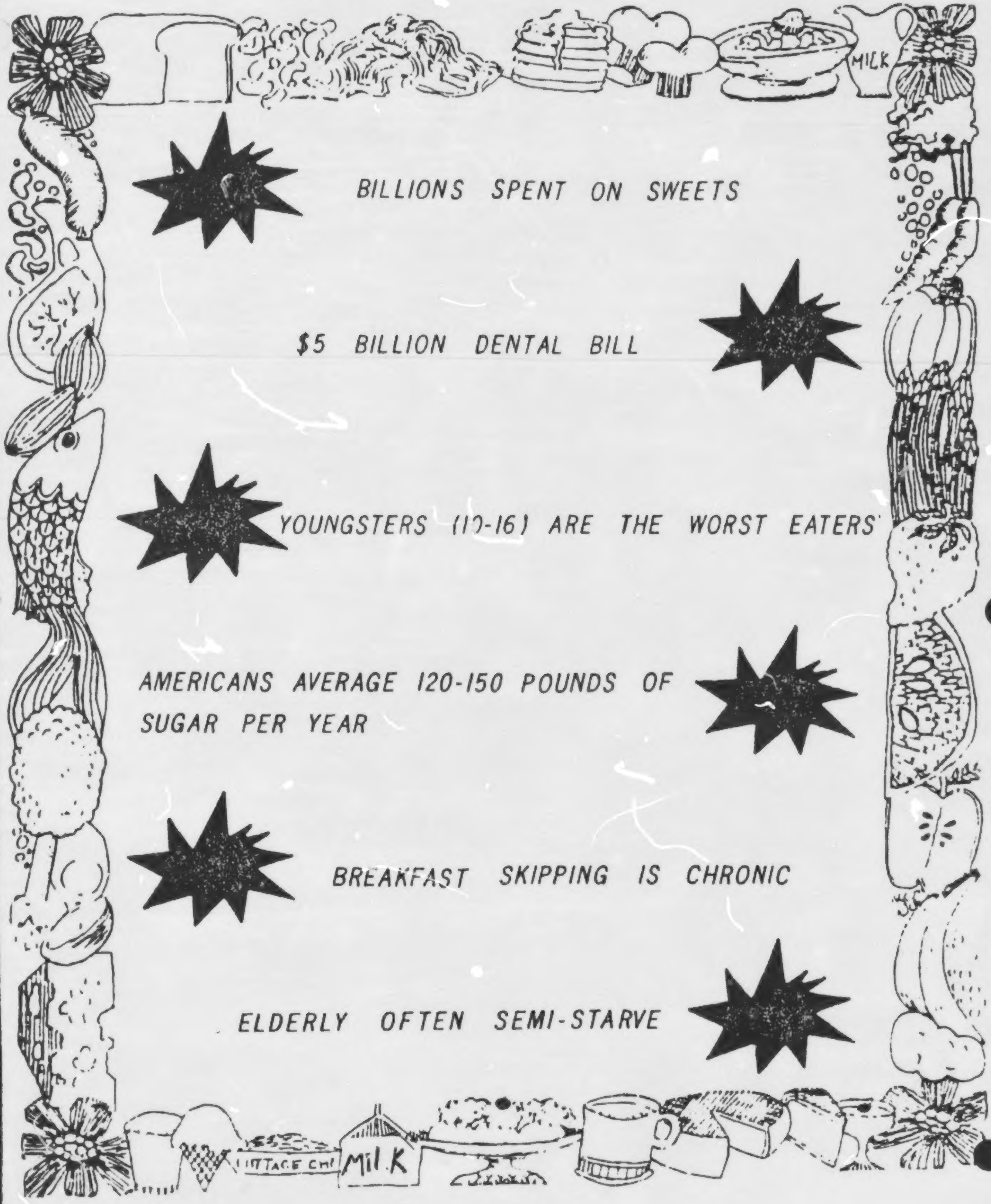
4. Have you ever been frustrated by the limited menus of fast food restaurants? What can you do about it?



What Should Consumers Know About Nutrition?



Transparency Master #1
Balanced Diet



BILLIONS SPENT ON SWEETS

$5 BILLION DENTAL BILL

YOUNGSTERS (10-16) ARE THE WORST EATERS

AMERICANS AVERAGE 120-150 POUNDS OF SUGAR PER YEAR

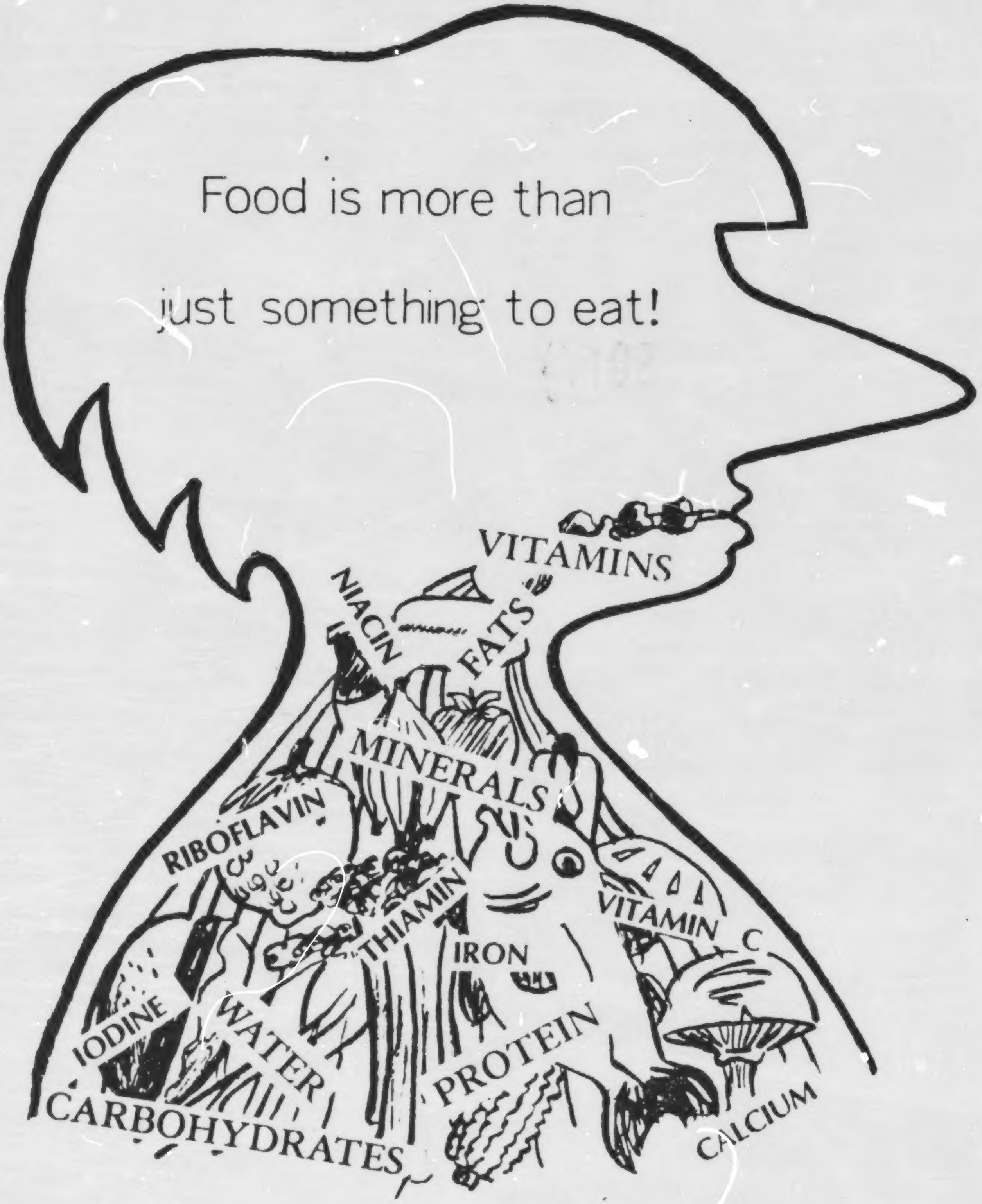
BREAKFAST SKIPPING IS CHRONIC

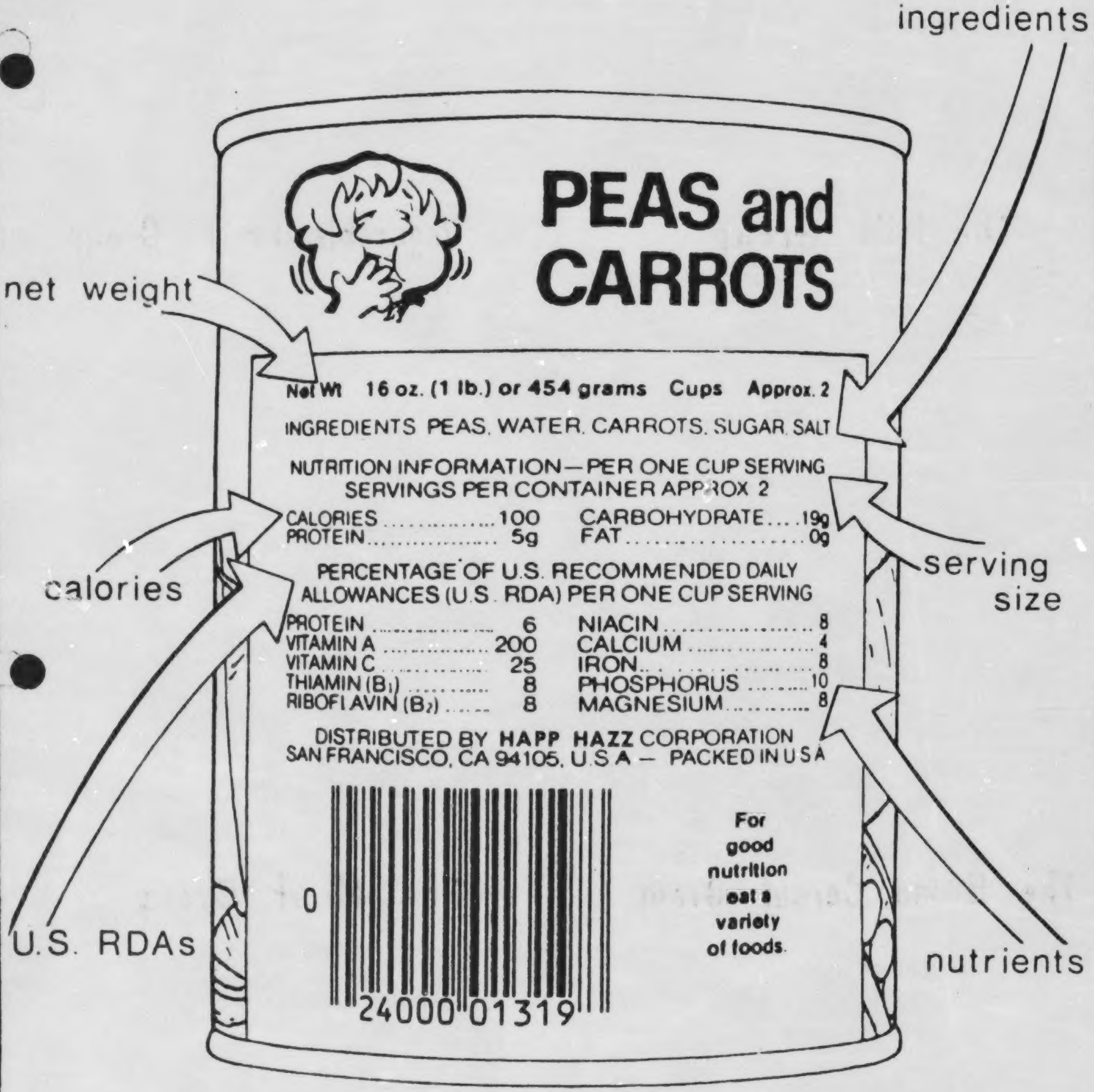
ELDERLY OFTEN SEMI-STARVE

How did we get to this sorry state of affairs?

- An important school in nutrition -- THE KITCHEN -- has been lost due to convenience foods.
- American family living patterns have changed.
- The dangers of poor nutrition are not immediate enough to scare people.

Transparency Master #3
Balanced Diet


Food is more than
just something to eat!
VITAMINS
NIACIN
FATS
MINERALS
RIBOFLAVIN
THIAMIN
VITAMIN C
IRON
IODINE
WATER
PROTEIN
CARBOHYDRATES
CALCIUM



PEAS and CARROTS

Net Wt 16 oz. (1 lb.) or 454 grams Cups Approx. 2

INGREDIENTS PEAS, WATER, CARROTS, SUGAR, SALT

NUTRITION INFORMATION—PER ONE CUP SERVING
SERVINGS PER CONTAINER APPROX 2

CALORIES	100	CARBOHYDRATE	19g
PROTEIN	5g	FAT	0g

PERCENTAGE OF U.S. RECOMMENDED DAILY ALLOWANCES (U.S. RDA) PER ONE CUP SERVING

PROTEIN	6	NIACIN	8
VITAMIN A	200	CALCIUM	4
VITAMIN C	25	IRON	8
THIAMIN (B_1)	8	PHOSPHORUS	10
RIBOFLAVIN (B_2)	8	MAGNESIUM	8

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For good nutrition eat a variety of foods.

NUTRITIONAL LABELING

Transparency Master #5
Balanced Diet

The Basic Four

The Milk Group

2 to 4 cups daily

The Vegetable-Fruit Group

4 servings daily

The Bread-Cereal Group

4 servings daily

The Meat Group

2 servings daily

Transparency Master #6
Balanced Diet

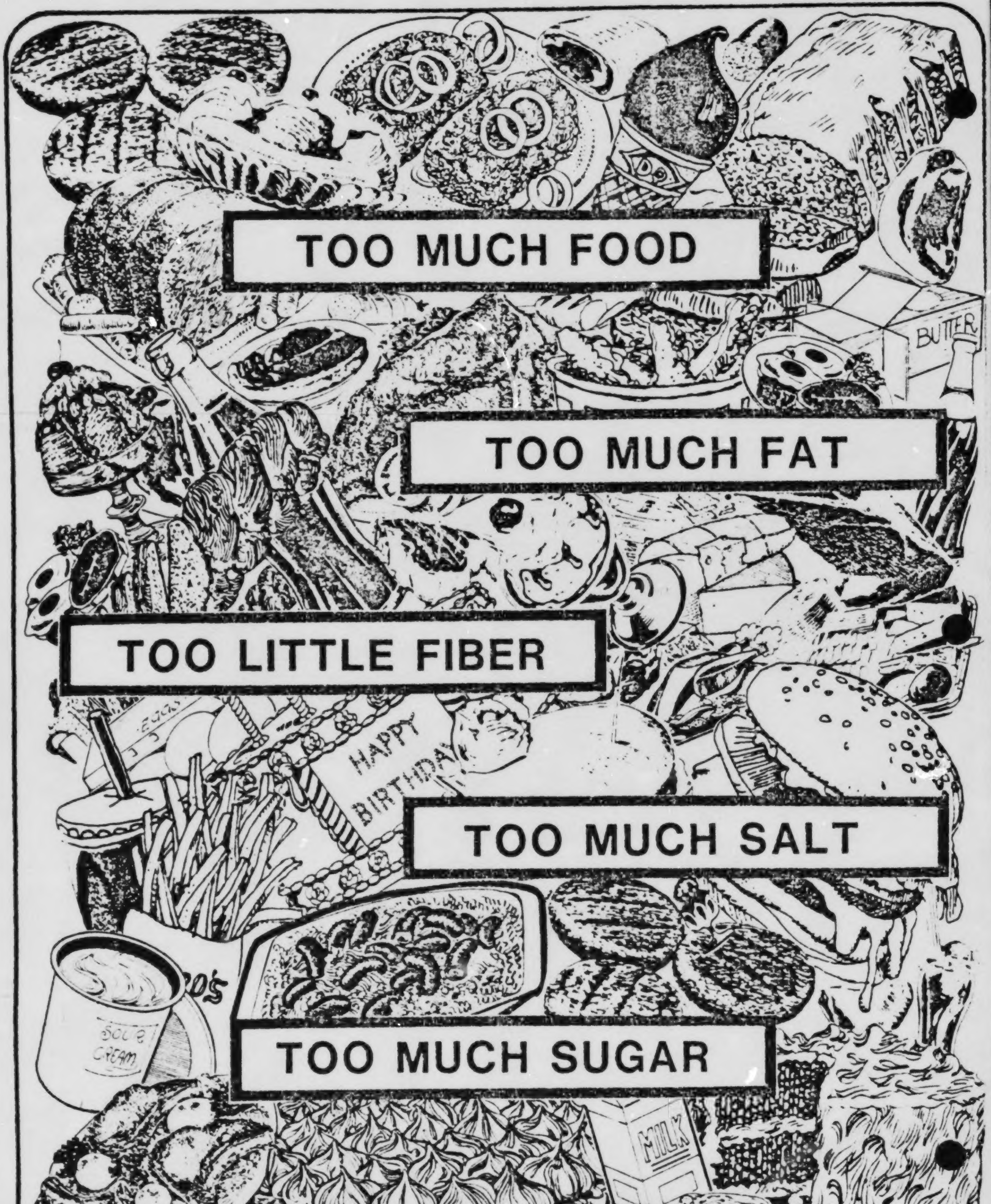
ADVERTISING TECHNIQUES - - -

☆ APPEAL TO EMOTIONS

☆ APPEAL TO LOGIC

☆ ENDORSEMENT

Transparency Master #7
Balanced Diet


BUTTER
EGGS
HAPPY BIRTHDAY
SOUR CREAM
MILK

TOO MUCH FOOD

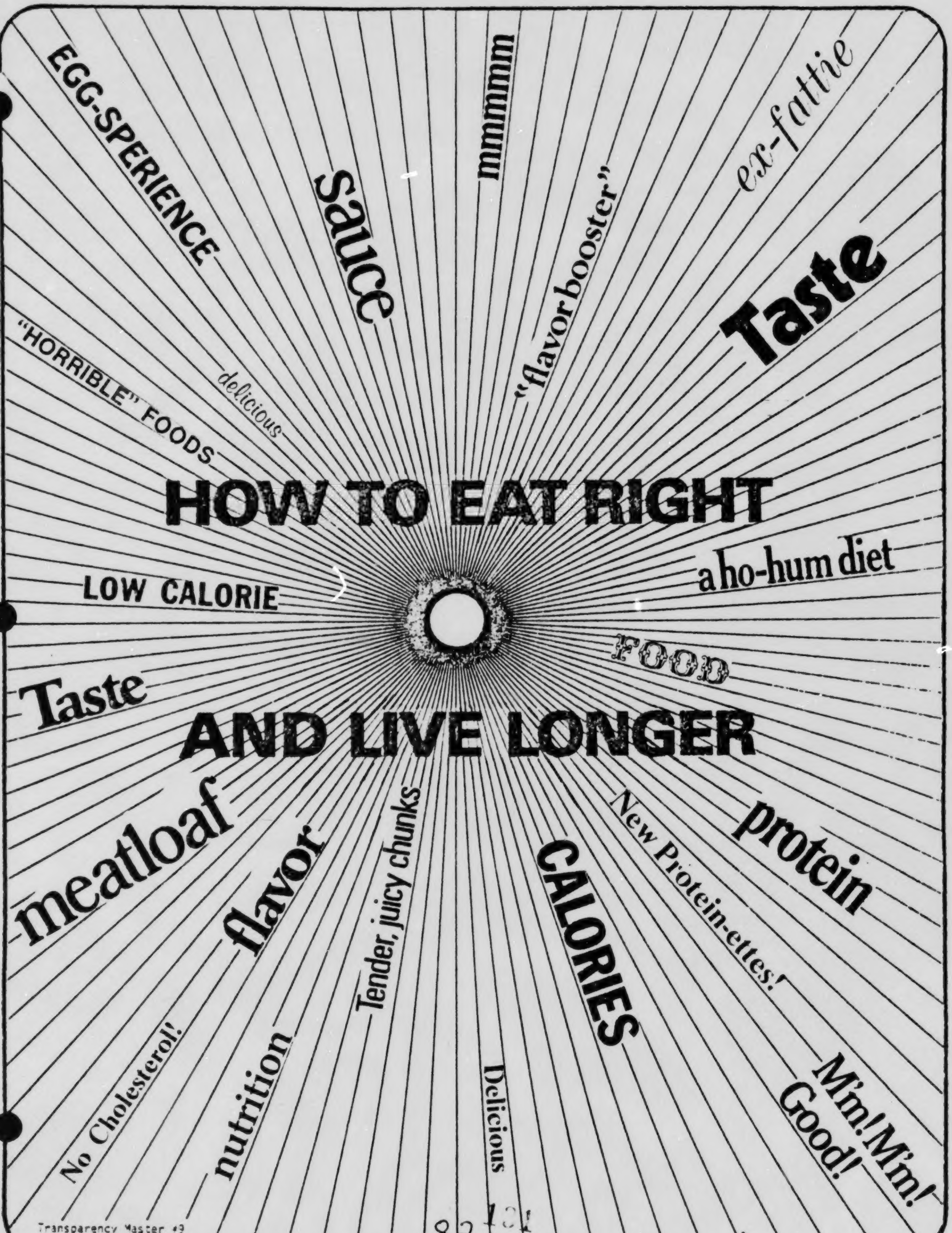
TOO MUCH FAT

TOO LITTLE FIBER

TOO MUCH SALT

TOO MUCH SUGAR

Transparency Master #8
Balanced Diet



HOW TO EAT RIGHT

AND LIVE LONGER

EGG-SPERIENCE

Sauce

mmmmm

ex-fattie

"flavor booster"

Taste

"HORRIBLE" FOODS

delicious

LOW CALORIE

a ho-hum diet

FOOD

Taste

meatloaf

flavor

Tender, juicy chunks

CALORIES

New Protein-ettes!

protein

No Cholesterol!

nutrition

Delicious

Mm! Mm! Good!

Transparency Master #9
Balanced Diet

Bad Eating Is a U.S. Habit

FAILURES MOUNT IN FOOD INDUSTRY

Vitamin Lack, Causing Anemia, Found Troubling Puerto Ricans

Confections and Soft Drinks in Schools

Nutritional Illiteracy

our Boys' Life Reader Panel" tells us they drink more than three soft drinks each day.

Poor Nutrition Among Youths

Sugar Linked to Degenerative Diseases

Manufacturers Defend Use of Sugar

Good Nutrition Habits

Are We Well Fed?

Soft Drinks and Health

Improving School Lunches

Think Nutrition

Sugar: The Question Is, Do We Need It at All?

Transparency Master #10
Balanced Diet

Answer Keys

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REPRODUCE THIS ORIGINAL COPY FOR USE
IN THEIR CLASSROOMS.

NAME ____________________

CLASS ____________________

DATE ____________________

Eater's Digest

1 ● Ⓑ Ⓒ Ⓓ

2 Ⓐ ● Ⓒ Ⓓ

3 Ⓐ ● Ⓒ Ⓓ

4 Ⓐ Ⓑ ● Ⓓ

5 Ⓐ ● Ⓒ Ⓓ

6 ● Ⓑ Ⓒ Ⓓ

7 ● Ⓑ Ⓒ Ⓓ

8 ● Ⓑ Ⓒ Ⓓ

9 Ⓐ Ⓑ Ⓒ ●

10 Ⓐ ● Ⓒ Ⓓ

11 Ⓐ Ⓑ ● Ⓓ

12 Ⓐ Ⓑ ● Ⓓ

13 ● Ⓑ Ⓒ Ⓓ

14 Ⓐ Ⓑ Ⓒ ●

15 Ⓐ ● Ⓒ Ⓓ

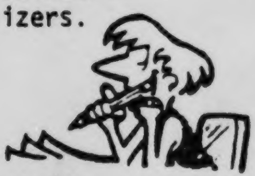
16 Ⓐ Ⓑ Ⓒ ●

What's Your Nutrition I.Q.?

ACCORDING TO SURVEYS CONDUCTED BY THE FOOD AND DRUG ADMINISTRATION, MANY CONSUMERS HAVE MISTAKEN NOTIONS ABOUT VARIOUS ASPECTS OF A BALANCED DIET. LET'S SEE HOW MUCH YOU KNOW!

CHECK TRUE OR FALSE:

TRUE	FALSE		
	✓	1.	All you need to do for proper nourishment is simply to eat a variety of foods. MUST BE A VARIETY OF THE RIGHT KIND OF FOODS.
✓		2.	People who do not eat meat, poultry, or fish can still stay healthy.
✓		3.	Snacks eaten between meals can be just as good for health as food eaten at regular meals.
	✓	4.	Fresh vegetables cooked at home are always more nutritious than convenience ones, including canned and frozen vegetables. MUST BE COOKED & STORED PROPERLY TO MAINTAIN NUTRIENTS.
	✓	5.	A diet high in protein and low in carbohydrate intake is ideal for losing weight. CALORIES ARE WHAT COUNT.
	✓	6.	When trying to lose weight, avoid starchy foods, such as potatoes and bread. THESE FOODS CONTAIN NEEDED NUTRIENTS.
	✓	7.	If you weigh what is suggested for your age, height, and bone structure, then you're getting proper nourishment. PROPER WEIGHT DOESN'T INDICATE INTAKE OF THE RIGHT NUTRIENTS.
✓		8.	Taking extra vitamins beyond what is suggested by the RDA's (Recommended Daily Allowances) will not give you more pep and energy.
	✓	9.	If you do take extra vitamins, it is better to take supplements of natural vitamins than supplements of synthetic vitamins. NO DIFFERENCE BETWEEN THEM.
✓		10.	Older people need the same amount of vitamins as younger people. BUT OLDER PEOPLE DO NOT NEED AS MANY CALORIES.
	✓	11.	Food grown in poor, worn-out soil does not contain as many vitamins as food grown in rich soil. VITAMINS ARE MANUFACTURED BY THE PLANT, NOT THE SOIL.
✓		12.	Food produced with chemical fertilizers is just as nutritious as food grown with natural, organic fertilizers.



Student Activity Sheet #1
Balanced Diet

DISTINGUISHING FACT AND OPINION

When buying products, we find that people are sending us messages that they want us to believe. The first step in deciding whether to believe something is to separate statements of FACT and statements of OPINION.

Let's look at two examples of statements made in a discussion:

1. Effective 1984, federal regulations will require U.S. automobile manufactures to increase by at least twenty-five percent the fuel efficiency of all mass production automobiles.
2. The increase in the fuel efficiency of automobiles will cause more air pollution problems in the world.

The first statement is a factual one (whether it is true or false is a separate question). We can check out that first statement by looking for evidence. The second statement offers an opinion -- the speaker's interpretation or value judgement.

READ THE FOLLOWING STATEMENTS. WRITE *F* BEFORE THOSE WHICH ARE FACTUAL STATEMENTS (WHETHER TRUE OR FALSE). WRITE *O* BEFORE STATEMENTS OF OPINION.

__O__ 1. "Vitamins give us extra pep. The more vitamins you take, the more pep you have."

__F__ 2. "Fish is in the MEAT GROUP in the BASIC FOUR."

__O__ 3. "One can eat ethnic foods--quite different from the usual American diet--and have a sensational, wonderful, healthy diet. But raw fish for breakfast is not my favorite."

__O__ 4. "Eat a balanced diet!"

__O__ 5. "Eating the basic four is easy."

__O__ 6. "You are what you eat!"

__F__ 7. "What a child eats today and throughout her life affects the course of her development."

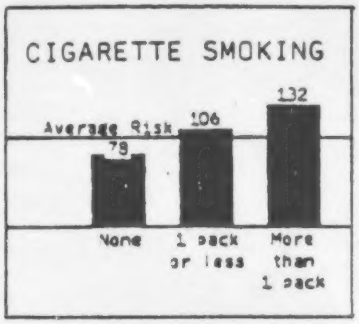
__O__ 8. "The big problem with nutrition in America is not the lack of sensational foods, it is Americans' poor eating habits!"

__F__ 9. "Iodine helps the thyroid gland to function properly."

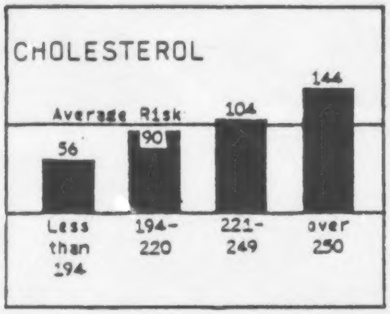
__O__ 10. "Ghee, wiz. You drink too much water!"

RISK FACTORS IN HEART ATTACK

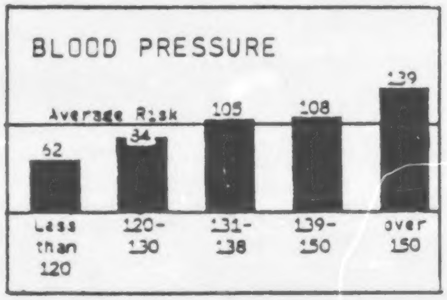
THESE GRAPHS SHOW HOW MUCH CERTAIN RISK FACTORS INCREASED THE DANGER OF CORONARY HEART DISEASE FOR 30- TO 62-YEAR OLD MEN IN FRAMINGHAM, MASSACHUSETTS. COLUMNS BELOW THE BLACK HORIZONTAL LINE INDICATE LOWER-THAN-AVERAGE RISK. COLUMNS ABOVE THE LINE INDICATE HIGHER-THAN-AVERAGE RISK. STUDY THE GRAPHS CAREFULLY. THEN FILL IN THE BLANKS WITH WORDS CHOSEN FROM THE LIST BELOW.



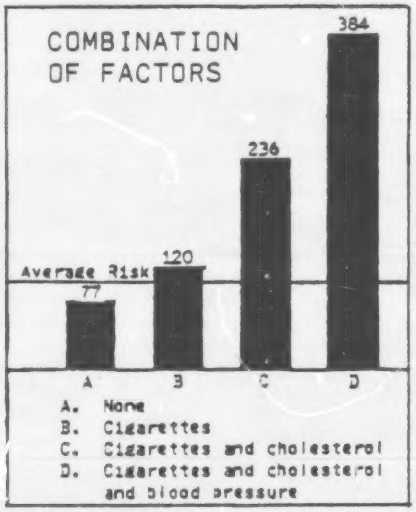
1. A man who smokes more than a pack of cigarettes a day has nearly TWICE the risk of heart attack of a non-smoker.



2. A man with a blood cholesterol measurement of 250 or above has about THREE times the risk of heart attack of a man with cholesterol below 194.



3. A man whose blood pressure is over 150 has more than TWO times the risk of heart attack of a man with blood pressure under 120.



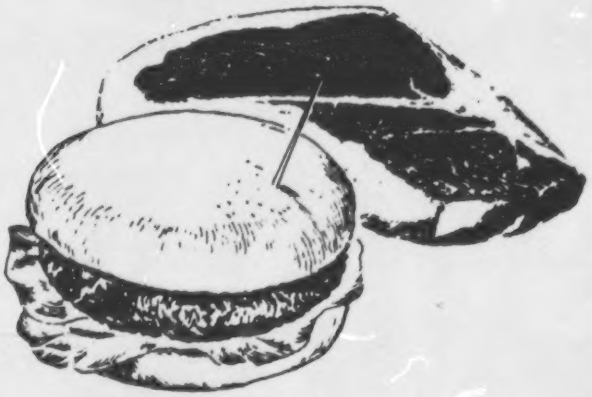
4. Combining major risk factors can greatly INCREASE the chances of coronary heart disease in a 45-year-old man.

5. According to the graph, the greatest risk of heart attack occurs when you combine the risk factors of CIGARETTES, HIGH CHOLESTEROL, AND HIGH BLOOD PRESSURE.

BLOOD PRESSURE *INCREASE* *TWICE* *FOUR* *CHOLESTEROL* *DECREASE*

CIGARETTE SMOKING *THREE* *TWO*

The Measure Of MEAT



People in the U.S. eat more meat than most other people of the world. They also lead the world in cancer, obesity, mortality rate, and degenerative disease.

U.S. yearly beef consumption has increased in the past 25 years from 60 pounds per person to 133 pounds. Poultry consumption has doubled from 25 pounds to 50 pounds. Today, each American eats from 226 to 254 pounds of meat a year. About 71 percent of his diet comes from animal protein while only 29 percent is vegetable.

The Russians get about 20 percent of their protein from animal sources and their health record is better. Their mortality rate is 7.3 per thousand as compared to 9.4 in the U.S. The life expectancy of the Russian male is 70.1 years while the American male's is only 66.7 years.

The average American eats some 18 pounds of meat a month. In Japan, the average person eats about one-half pound.

Not only is meat costly to produce and eat, but Americans eat two to four times as much meat as their bodies can use. As this excess protein is excreted, so is badly needed calcium. Thus vegetarians have a greater bone density than heavy meat eaters. They are also thinner and healthier.

If each person reduced his meat intake by only 10 percent for one year, he would free 10 million tons of grain for other humans. This would feed 60 million people for one year.

Source: "The Politics of Food"
Documentary Photo Aids, 1978

READ THE ARTICLE, THEN ANSWER TRUE OR FALSE:

F 1. Americans eat less meat than most other people of the world.

T 2. Americans eat about 2 and one-half times as much animal protein as vegetable.

F 3. Russians eat more animal protein than Americans do.

F 4. The American male's life expectancy is higher than the Russian male's.

T 5. Americans eat 36 times as much meat as the Japanese.

F 6. Excess protein eaten is simply stored for future use.

F 7. Eating protein helps build up body calcium.

T 8. Vegetarians have a greater bone density than heavy meat eaters.

T 9. If Americans reduced their meat eating, more grain would be available for food.

F 10. The article suggests that the more meat you eat, the healthier you'll be.

Student Activity Sheet #11
Balanced Diet

Can We Recognize Good and Poor Eating Habits?

BELOW YOU WILL FIND EXAMPLES OF STUDENTS AND THEIR EATING HABITS. BASED ON THE INFORMATION GIVEN, INDICATE WHETHER EACH PERSON HAS GOOD OR POOR EATING HABITS. GIVE AT LEAST ONE REASON FOR YOUR DECISION.

1. Joan thinks she is slightly overweight and has cut out all bread and potatoes from her meals. Two nights a week, Joan goes out with a group of friends. They often end up at the ice cream parlor. Joan just can't refuse ice cream, so on those nights, she skips dinner to save on calories.
   POOR EATING HABITS -- MERELY COUNTING CALORIES INSTEAD OF EXAMINING NUTRITIONAL VALUE.

2. Jack hates vegetables, but he knows that he needs to eat some sort of a vegetable every now and then. So he sometimes eats a plain lettuce salad with his dinner to make up for not eating other vegetables.
   POOR EATING HABITS -- CANNOT MAKE UP FOR MISSING NUTRIENTS WITH JUST AN OCCASIONAL SALAD.

3. Lynn knows that she needs to have a lot of vitamins in her daily diet. She says that it really doesn't matter what she eats as long as she takes a vitamin pill every day.

   POOR EATING HABITS -- VITAMIN SUPPLEMENTS ARE NOT A REPLACEMENT FOR FOOD.

4. Because of their concern about world hunger and about how much grain is used to produce meat protein, Michelle and her family do not eat meat every day. When meat isn't served, Michelle's parents make sure that bean or cheese dishes are substituted. Michelle doesn't like beans as well as she likes meat, but she eats the beans because of her family's concern about world hunger.

   GOOD EATING HABITS -- SUBSTITUTING HIGH QUALITY PROTEIN FOODS FOR MEAT.

5. Mike is one of the better football players of his school's team. He practices hard every day and is exhausted after practice. Mike's parents work fairly late, and dinner is usually not ready until about 8:00. Mike can't wait that long and has been stopping on the way home for a fried pie, french fries, and a coke. Then he goes home to nap and may sleep through dinner. He often eats his dinner just before going to bed for the night.

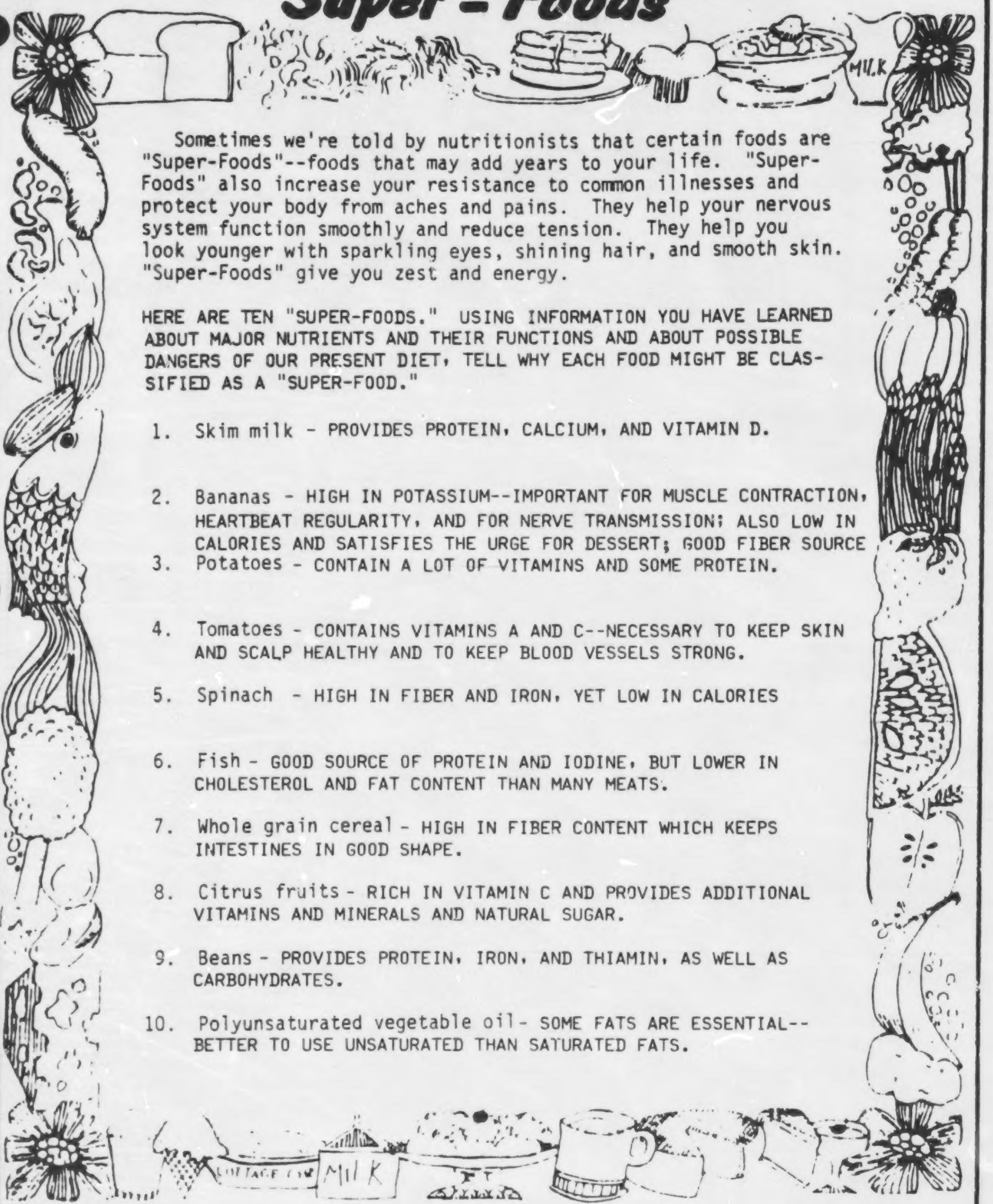
   POOR EATING HABITS -- MANY CALORIES, BUT PROBABLY NOT ENOUGH NUTRIENTS.

6. Maureen does not like the usual breakfast foods at all. She often has a peanut butter and jelly sandwich and milk and fruit for breakfast.

   GOOD EATING HABITS -- BALANCED BREAKFAST.

7. Scott is allergic to a number of foods such as eggs, cheese, and milk. He doesn't feel that he needs substitutes for these foods because he eats three full meals a day.
   POOR EATING HABITS -- THREE MEALS A DAY DOES NOT GUARANTEE PROPER NOURISHMENT FOR NUTRIENTS IN EGGS, CHEESE, AND MILK.

"Super - Foods"



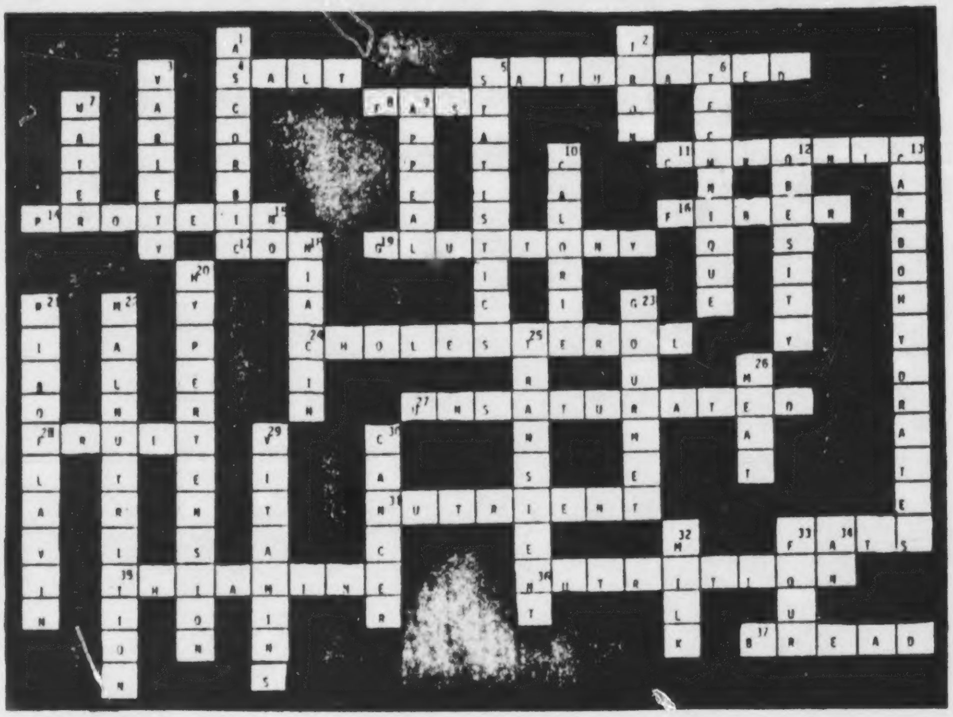
Sometimes we're told by nutritionists that certain foods are "Super-Foods"--foods that may add years to your life. "Super-Foods" also increase your resistance to common illnesses and protect your body from aches and pains. They help your nervous system function smoothly and reduce tension. They help you look younger with sparkling eyes, shining hair, and smooth skin. "Super-Foods" give you zest and energy.

HERE ARE TEN "SUPER-FOODS." USING INFORMATION YOU HAVE LEARNED ABOUT MAJOR NUTRIENTS AND THEIR FUNCTIONS AND ABOUT POSSIBLE DANGERS OF OUR PRESENT DIET, TELL WHY EACH FOOD MIGHT BE CLASSIFIED AS A "SUPER-FOOD."

1. Skim milk - PROVIDES PROTEIN, CALCIUM, AND VITAMIN D.
2. Bananas - HIGH IN POTASSIUM--IMPORTANT FOR MUSCLE CONTRACTION, HEARTBEAT REGULARITY, AND FOR NERVE TRANSMISSION; ALSO LOW IN CALORIES AND SATISFIES THE URGE FOR DESSERT; GOOD FIBER SOURCE
3. Potatoes - CONTAIN A LOT OF VITAMINS AND SOME PROTEIN.
4. Tomatoes - CONTAINS VITAMINS A AND C--NECESSARY TO KEEP SKIN AND SCALP HEALTHY AND TO KEEP BLOOD VESSELS STRONG.
5. Spinach - HIGH IN FIBER AND IRON, YET LOW IN CALORIES
6. Fish - GOOD SOURCE OF PROTEIN AND IODINE, BUT LOWER IN CHOLESTEROL AND FAT CONTENT THAN MANY MEATS.
7. Whole grain cereal - HIGH IN FIBER CONTENT WHICH KEEPS INTESTINES IN GOOD SHAPE.
8. Citrus fruits - RICH IN VITAMIN C AND PROVIDES ADDITIONAL VITAMINS AND MINERALS AND NATURAL SUGAR.
9. Beans - PROVIDES PROTEIN, IRON, AND THIAMIN, AS WELL AS CARBOHYDRATES.
10. Polyunsaturated vegetable oil - SOME FATS ARE ESSENTIAL--BETTER TO USE UNSATURATED THAN SATURATED FATS.

Student Activity Sheet #14
Balanced Diet

"Eater's Digest" Words



ACROSS

4. Contributes to high blood pressure
5. Fat mainly from animal sources
8. Food sold quickly over-the-counter is known as ______-food
11. Constant, or lasting a long time
14. Nutrient which builds and maintains tissues
16. Also called roughage
17. An argument against something or someone
19. The act or habit of eating too much
24. A substance which clogs the blood vessels
27. Fat which is liquid at room temperature
28. You need 4 servings daily from the vegetable-   group
31. An element of food which promotes body growth and development and regulates body processes
33. Saturated _______ are hard at room temperature
35. Nutrient which helps keep nerves in healthy condition (alternative spelling)
36. The study of a proper, balanced diet to promote health
37. Good source of carbohydrates

DOWN

1. Nutrient which helps hold body cells together and strengthens blood vessel walls is ________ acid
2. Nutrient which helps make hemoglobin, which carries oxygen to different parts of the body
3. The key to making the Basic Four system work
5. Math facts that are assembled and tabulated in a way that gives information about a subject
6. Method used
7. Carrier of nutrients to, and waste from, cells in the body
9. Means used in an ad to interest or reach the customer
10. A unit for measuring the energy produced by food
12. Medical problem caused from eating too much food
13. Nutrient which supplies food energy and helps the body use fat
15. Opposite of yes
18. Nutrient which helps cells use oxygen to produce energy
20. High blood pressure
21. Nutrient which helps body cells use oxygen to release energy from foods
22. Faulty or inadequate nutrition
23. Having to do with fine foods and drinks
25. Passing away with time, temporary
26. Protein should come from a variety of sources, not just _______
29. Nutrients essential for good nutrition
30. Disease linked to the rich American diet
32. Good source of calcium
33. Number of major food groups
34. One

Student Activity Sheet #16
Balanced Diet

Words about DIET and EATING

Two lists of words appear below. Divide the class into two parts -- one-half of the class assigned to each list. Try to write out what each word on your list means and what it has to do with EATING IN AMERICA. Then, check it out in a dictionary!

LIST I

EAT: TO TAKE IN THROUGH THE MOUTH

FEED: TO GIVE FOOD TO

CONSUME: TO EAT OR DRINK ESPECIALLY IN GREAT QUANTITY

DEVOUR: TO EAT UP GREEDILY OR RAVENOUSLY

FORAGE: FOOD FOR ANIMALS ESPECIALLY WHEN TAKEN BY BROWSING OR GRAZING

NUTRITIONIST: A SPECIALIST IN THE STUDY OF NUTRITION

GLUTTONY: EXCESS IN EATING OR DRINKING

GRATIFY: TO BE A SOURCE OF OR GIVE PLEASURE

SATISFY: TO GRATIFY TO THE FULL

LIST II

DIET: FOOD AND DRINK REGULARLY PROVIDED OR CONSUMED

GRUB: FOOD

FARE: RANGE OF FOOD, DIET

VICTUALS: FOOD USABLE BY MAN

NUTRITION: THE SUM OF THE PROCESSES BY WHICH AN ANIMAL OR PLANT TAKES IN AND UTILIZES FOOD SUBSTANCES

CHOW: FOOD, VICTUALS

FOOD: MATERIAL CONSISTING ESSENTIALLY OF NUTRIENTS USED TO SUSTAIN GROWTH, REPAIR, AND VITAL PROCESSES AND TO FURNISH ENERGY

RATIONS: FOOD PROVISIONS FOR ONE DAY

FOOD FADDIST: PERSON WHO EATS CERTAIN FOODS WITH EXAGGERATED ZEAL

A set of common phrases about eating is listed below. Think about each one. Do you agree or disagree? Why?

Agree Disagree

ANSWERS _____ 1. "Praise is the best diet for the careful eater."

WILL VARY. 2. "Come Ye. Buy and eat soft drinks, cotton candy, caramel corn, taffy, hot dogs, pizza, and fried chicken--every day on Route #19."

_____ _____ 3. "Eat and be merry. Tomorrow will take care of itself."

_____ _____ 4. "Eat to live--don't live to eat."

_____ _____ 5. "At every meeting we sit and eat. At every visit we sit and eat. My life is a lot of sitting and eating."

_____ _____ 6. "Too many Americans are eating the world out of house and home."

_____ _____ 7. "You are what you eat."

Foods I ate during the past twenty-four hours

⇩ ⇩ ⇩ ⇩ ⇩ ⇩

ANSWERS WILL VARY

⇧ ⇧ ⇧ ⇧ ⇧ ⇧

Why I ate those foods

You have just indicated your food preferences. You need to think about HOW YOU LEARNED THESE FOOD PREFERENCES.

--What did you learn about PREFERRED FOODS from others?
How did "THEY" teach you food preferences?
(E.G., Liking turkey on Thanksgiving rather than pizza and cranberry sauce!)

--What have you learned FOR YOURSELF ABOUT PREFERRING CERTAIN FOODS OVER OTHERS?
(E.G., Liking cotton candy rather than soy beans at the county fair!)

	MILK AND MILK PRODUCTS 4 servings daily	VEGETABLES AND FRUITS 4 servings daily	BREADS AND CEREALS 4 servings daily	MEAT GROUP 2 servings daily
MON	MILK MILK ICE CREAM MILK	VEG. JUICE COCKTAIL LETTUCE IN TACO APPLE MUSHROOMS/TOMATO SAUCE IN PIZZA MIXED GREEN SALAD	TOAST TACO PIZZA CRUST	FRIED EGG GROUND BEEF/SHREDDED CHEESE IN TACO CHEESE ON PIZZA PEANUTS
TUES	MILK CLAM CHOWDER MILK MILK	ORANGE JUICE SANDWICH TOPPINGS BANANA CORN-ON-THE-COB CELERY/CARROT STICKS CHERRIES	ENGLISH MUFFIN HAMBURGER ROLL BREAD	SCRAMBLED EGGS CLAMS IN CHOWDER HAMBURGER CHICKEN
WED	MILK THICK SHAKE MILK	TOMATO JUICE FRIES TOMATO SAUCE MIXED GREEN SALAD	CORN FLAKES CHEESEBURGER ROLL SPAGHETTI GARLIC BREAD POPCORN	CHEESEBURGER MEATBALLS
THURS	MILK MILK ICE CREAM SUNDAE	BANANA BAKED POTATO APPLESAUCE	PANCAKES SANDWICH BREAD	BACON PEANUT BUTTER ROAST PORK
FRI	MILK MILK MILK	APPLE JUICE TOMATO SAUCE--CHILI FRUIT SALAD PLATE GREEN BEANS PARSLEY POTATOES	BAGEL CORN MUFFIN GINGERBREAD	BEEF CHILI BROILED FISH
SAT	MILK MILK MILK MILK	CANTALOUPE COLE SLAW FRUIT COCKTAIL BROCCOLI CARROT-RAISIN SALAD	BRAN FLAKES TOAST SANDWICH ROLL CORNBREAD DOUGHNUT	HOT DOG BAKED BEANS BEANS & RICE CASSEROLE
SUN	MILK MILK MILK MILK	ORANGE JUICE TOMATO SOUP BANANA SWEET POTATOES GREEN BEANS LETTUCE WEDGE PUMPKIN IN PIE	2 DOUGHNUTS SANDWICH BREAD PIE CRUST CRACKERS	TUNA SALAD BAKED HAM CHEESE

1. On which days was a "balanced diet" eaten? SAT./SUN. On the "unbalanced" days, what food groups were deficient? How could the diet be changed to improve it? ANSWERS WILL VARY
2. Was a protein food included in every breakfast? YES, MILK CONTAINS PROTEIN
3. What iron-rich foods were consumed? Was enough calcium consumed? USUALLY
4. Was a rich vitamin C food eaten daily? YES

Review Time

What is good nutrition?

MATCH BY WRITING THE LETTER OF THE CORRECT FUNCTION BEFORE EACH NUTRIENT:

C 1. Fats

A 2. Vitamin C

J 3. Iodine

F 4. Protein

G 5. Vitamin A

B 6. Vitamin D

I 7. Iron

H 8. Carbohydrates

E 9. B Vitamins

K 10. Water

D 11. Calcium

A. Necessary for the health of teeth, gums, and blood vessels

B. Helps the body build strong bones and teeth

C. Most concentrated source of energy

D. Absolutely essential for strong teeth and bones, for blood clotting, and for healthy nerve and muscle activity

E. Help body cells obtain energy from food and keep skin and nerves healthy

F. Builds, repairs, and maintains all tissues

G. Essential for growth, for vision, for healthy skin, and for resistance to infection

H. Helps the body use fat and spares protein for body building and repair

I. Helps the body make hemoglobin and helps cells use oxygen

J. Needed for proper functioning of the thyroid gland

K. An essential part of all body tissues and also helps regulate body temperature

A. Many nutritionists feel that THE BASIC FOUR is too simple an approach to good eating. They advocate eating by the "basic six" or some other plan. What do you think? Can you easily get all the essential nutrients by paying close attention to only four food groups? Are there some foods that are too difficult to categorize?

ANSWERS WILL VARY

B. How can Americans get "turned on" to eating adequate breakfasts?

ANSWERS WILL VARY

C. How can fast food meals be incorporated into a "balanced diet"?

ANSWERS WILL VARY

D. Do you eat a "balanced diet"? If not, why not? What can you do to improve your eating habits?

ANSWERS WILL VARY

E. Consider one item which many of us purchase -- ***Vitamins***.

What do we want when we purchase VITAMIN PILLS? What do we want them to do for us? What are our goals in using them?

ANSWERS WILL VARY

What are different ways we can make sure we are getting enough vitamins in our diet?

ANSWERS WILL VARY

Study vitamin pill advertisements on TV, radio, and in the newspapers. Why do they say we should take vitamin pills? What do they tell us about HOW to select the BEST product to purchase?

ANSWERS WILL VARY

Do you think vitamin advertising has had an effect on making Americans so vitamin-conscious?

ANSWERS WILL VARY

Talk with health care professionals in your community about vitamin pills. What do they tell you?

ANSWERS WILL VARY

After looking at the various issues concerning vitamin pills, can you make a decision? Are vitamin pills the best way to make sure YOU get enough vitamins?

ANSWERS WILL VARY

The Basic Four and Ethnicity

Look up the word ETHNICITY in the dictionary. What does it mean?

ETHNICITY: ETHNIC QUALITY OR AFFILIATION

In America, there are a lot of different ethnic groups. One part of ethnic difference is expressed in the area of FOODS. Ethnic groups have different food traditions. They have traditionally prepared and eaten foods which are different from those of others.

LIST SOME ETHNIC FOODS IN AMERICA:

ANSWERS WILL VARY

Interview someone in your community who you consider to be a fine member of an ethnic tradition -- or visit the owner of an ethnic restaurant. Write down some of the important dishes or meals served. Note the ingredients as well, and place these food items into the BASIC FOUR.

ANSWERS WILL VARY

KEY QUESTION: *IS IT POSSIBLE TO EAT QUITE DIFFERENTLY IN AMERICA AND STILL HAVE A WELL-BALANCED DIET?*

Can a person eat raw fish and seaweed for breakfast and still be on the way to a balanced diet for that day?

ANSWERS WILL VARY

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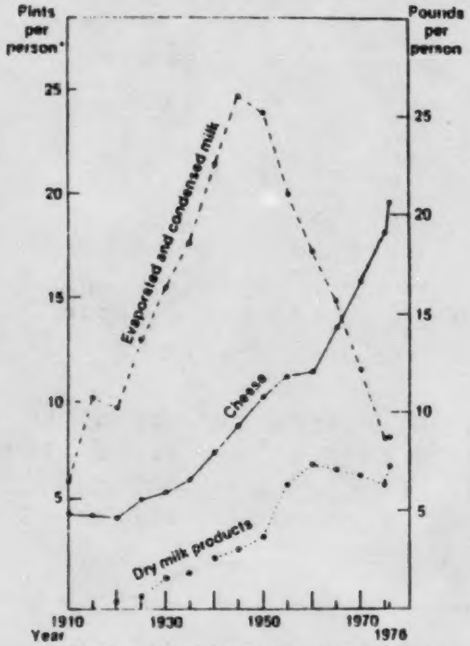
Exactly what changes have occurred in our diet? The Center for Science in the Public Interest, a nonprofit consumer organization, has prepared graphs showing food consumption for many commonly eaten foods. Data was provided by the United States Department of Agriculture. To calculate how much the "average" American eats, USDA divides total U.S. consumption by the July 1 population of that year. The resulting average per person is really an approximation. It is impossible to know how much of the food disappearing from the marketplace (the consumption figure) was actually eaten by the consumer. Because food that is spoiled, wasted, or fed to pets is not taken into account, the figures may exaggerate actual intake of food by roughly 25 to 30 percent.[10]

STUDY THE GRAPHS CAREFULLY. THEN ANSWER THE QUESTIONS FOLLOWING THEM.

Graph 1: Cheese and Milk Product Consumption



*apply to evaporated and condensed milk only

1 pint = .47 liters (470 milliliters)

1 pound = 454 grams

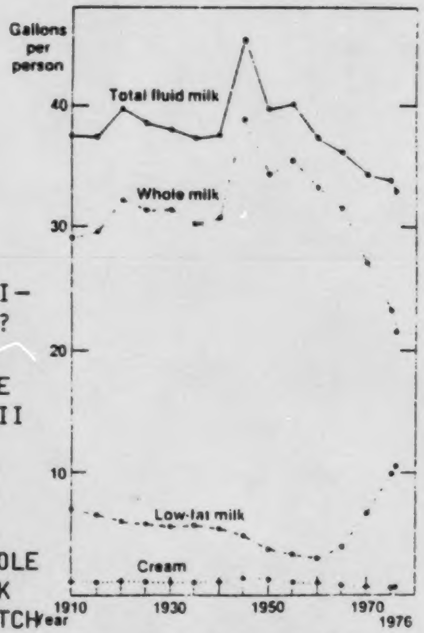
1. HOW MANY POUNDS OF CHEESE DID AMERICANS EAT IN 1976? HOW DOES THAT FIGURE COMPARE TO 1910?

   1976--20.7 LBS/PERSON; THAT IS ABOUT 4 TIMES THE 1910 FIGURE OF 4.9 LBS/PERSON

2. WHAT HAS BEEN THE PATTERN IN THE USE OF CANNED MILK? WHY DO YOU THINK THIS HAS OCCURRED?

   DECLINE SINCE 1940'S--MAY BE DUE TO MORE REFRIGERATION FACILITIES TODAY

Graph 2: Milk Consumption



1 gallon = 3.79 liters

3. IN WHAT YEAR DID WE AMERICANS DRINK THE MOST MILK?

   ABOUT 1945 -- CHILDREN MADE UP A LARGER PERCENTAGE OF THE POPULATION DURING WORLD WAR II

4. WHAT TRENDS ARE EVIDENT IN OUR MILK CONSUMPTION? WHY DO YOU THINK THIS IS OCCURRING? DECLINE IN MILK CONSUMPTION, PARTICULARLY WHOLE MILK; INCREASE IN LOW-FAT MILK CONSUMPTION; MAY REFLECT SWITCH TO DRINKING SOFT DRINKS AND DESIRE FOR LOWER-FAT MILK

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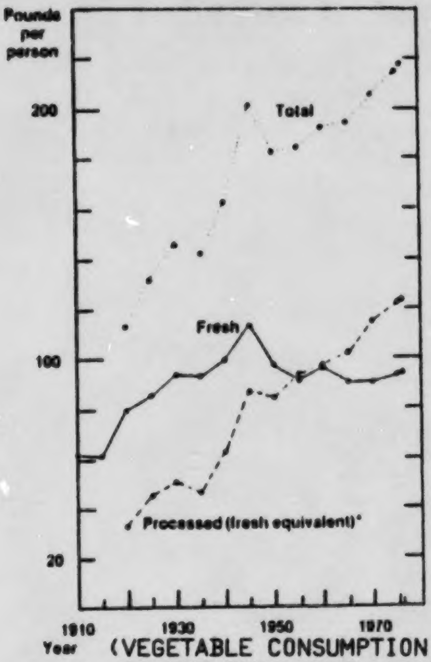
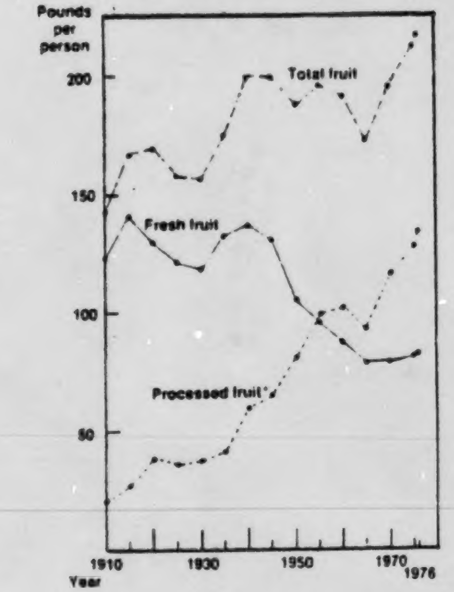
Graph 3: Vegetable Consumption



(VEGETABLE CONSUMPTION FIGURES DO NOT SHOW WHAT WAS "HOME-GROWN.")

5. WHAT FACTORS COULD HAVE CONTRIBUTED TO THE RISE IN VEGETABLE CONSUMPTION? MAY BE PARTLY DUE TO RISING INTEREST IN SALADS AND CONVENIENCE FOODS

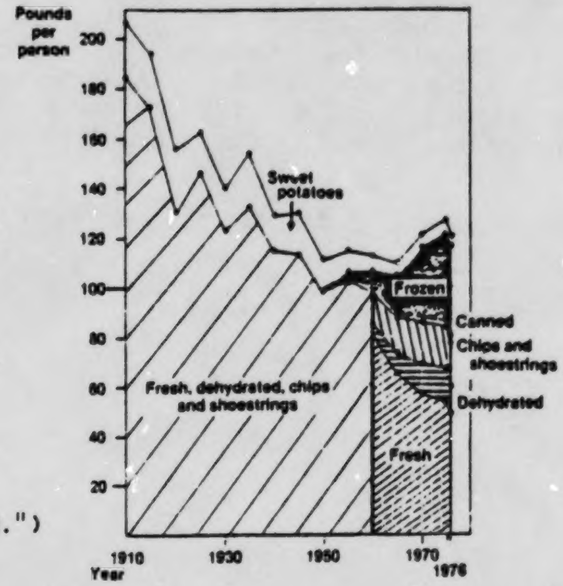
Graph 5: Fruit Consumption



8. WHAT ARE THE TRENDS IN FRUIT CONSUMPTION? EATING MORE FRUIT, BUT MOST OF IT IS PROCESSED; MAJOR INCREASE IN FROZEN ORANGE JUICE CONSUMED

9. IN WHAT YEAR WAS THERE A DECLINE IN CITRUS PROCESSED FRUIT CONSUMPTION? WHAT COULD HAVE CAUSED THIS? EARLY 1960'S--SEVERE WEATHER DAMAGED CROPS

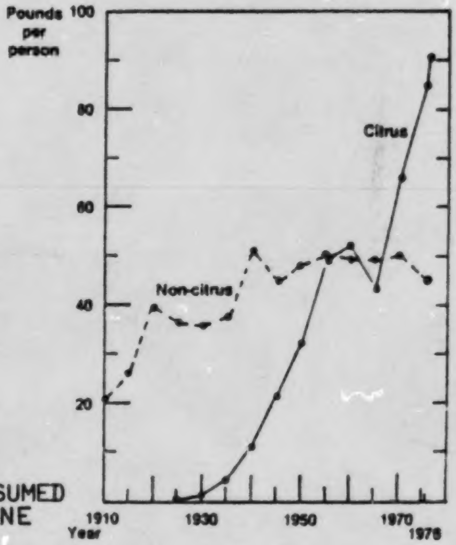
Graph 4: Potato Consumption



6. HOW DOES THE 1976 DATA FOR POTATO CONSUMPTION COMPARE WITH THAT FOR 1910? LOWER

7. WHAT HAVE BEEN THE TRENDS IN POTATO CONSUMPTION SINCE 1960? WHY? INCREASE; FROZEN FRENCH FRIES SOLD IN SUPERMARKETS AND FAST FOOD RESTAURANTS

Graph 6: Processed Fruit Consumption



2.2 pounds = 1 kilogram

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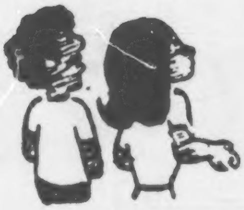
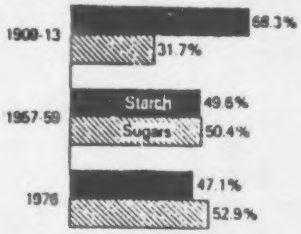
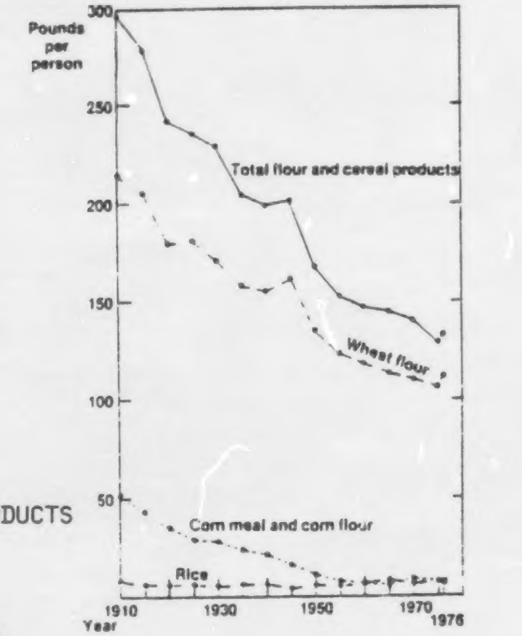


Perhaps the most striking change in the typical American diet has been the dramatic decline in our carbohydrate intake. In 1910, Americans averaged 492 grams of carbohydrate per person each day. This figure had dropped to 374 grams by the 1960's. In 1976, carbohydrate intake had increased to 390 grams daily. This is still about 100 grams less than our great-grandparents consumed![10]

Graph 7: Sources of Carbohydrates



Graph 8: Flour and Cereal Product Consumption



STUDY GRAPHS 7 - 10:

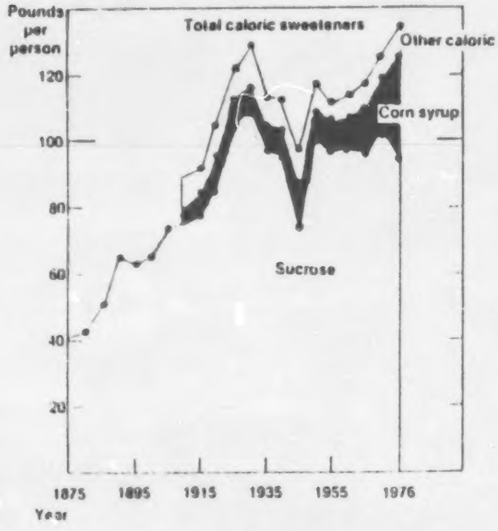
10. WHAT TRENDS ARE EVIDENT IN OUR CARBOHYDRATE CONSUMPTION?

DECLINING CARBOHYDRATE CONSUMPTION PARTICULARLY FROM FLOUR AND CEREAL PRODUCTS

11. WHAT FACTORS CAN YOU THINK OF THAT COULD HAVE ATTRIBUTED TO SUCH CHANGES IN OUR DIET?

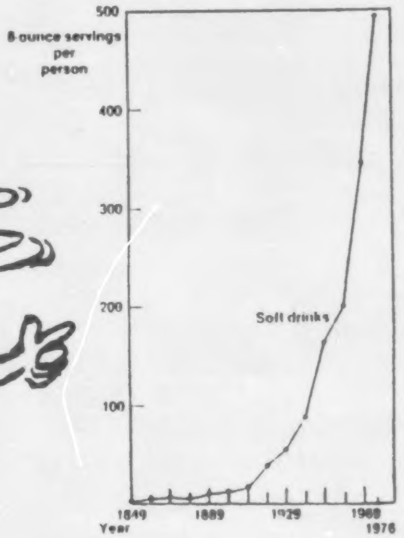
INCREASING AVAILABILITY OF SOFT DRINKS CAKES, ICE CREAM, ETC. TO ALL INCOME LEVELS

Graph 9: Caloric Sweetener Consumption



2.2 pounds = 1 kilogram

Graph 10: Soft Drink Consumption



1 cup = .24 liters (240 milliliters)

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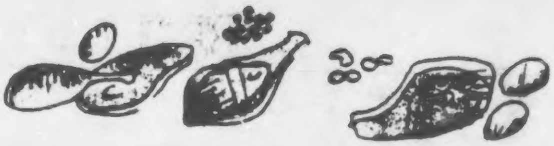
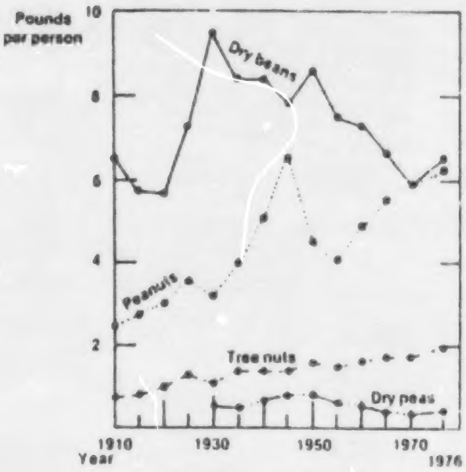
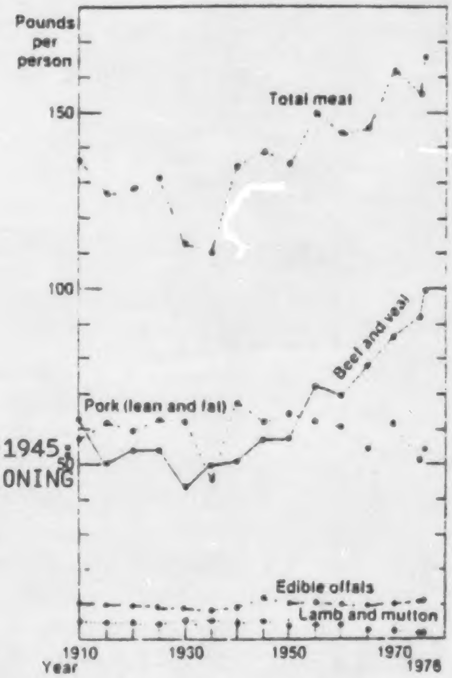


Graph 11: Bean, Pea and Nut Consumption



12. WHEN WERE THE PEAK YEARS FOR BEAN AND PEANUT CONSUMPTION? WHAT FACTORS COULD HAVE CONTRIBUTED TO THIS? BEANS--1930,1950: WHEN MEAT CONSUMPTION FELL PEANUTS--1945: MEAT RATIONING OF WW II

Graph 12: Meat Consumption

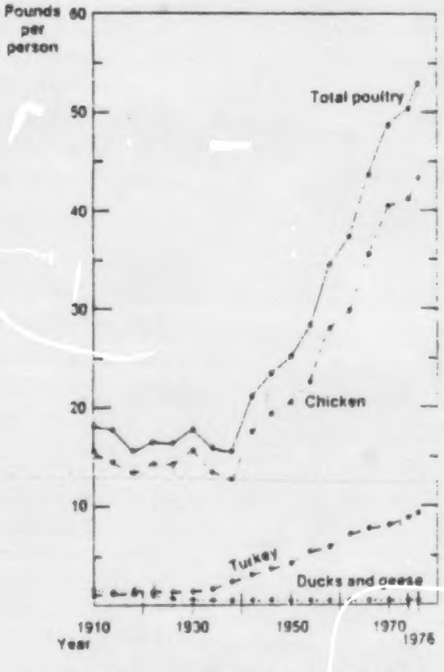


13. WHAT TRENDS DO YOU NOTICE IN OUR MEAT-EATING HABITS?

RISE IN MEAT CONSUMPTION, PARTICULARLY BEEF.

14. WHAT FACTORS CONTRIBUTE TO SUCH TRENDS? MAY BE DUE TO RISING INCOMES, MORE "STEAK" AND "HAMBURGER" RESTAURANTS, AND AVAILABILITY OF SANDWICH MEATS.

Graph 13: Poultry Consumption



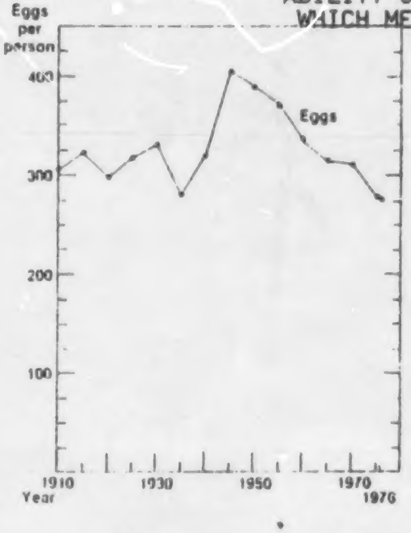
15. HOW MANY MORE POUNDS OF POULTRY DID WE CONSUME IN 1976 THAN IN 1910?

ALMOST 3 TIMES AS MUCH, 52.9 - 18.0 = 34.9 LBS.

16. HOW CAN YOU EXPLAIN THE RISE AND FALL OF THE EGG'S POPULARITY?

LESS TIME GIVEN TO COOKING BREAKFAST, ATTENTION TO CHOLESTEROL. 35

Graph 14: Egg Consumption

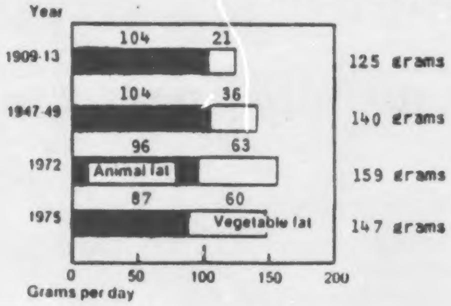


2.2 pounds = 1 kilogram

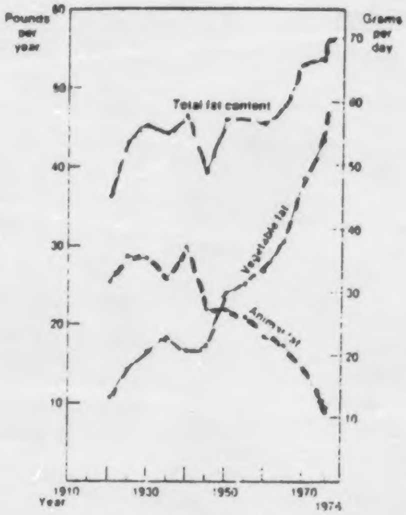
Perhaps the most dramatic change in our diet is our growing fat intake. Around 1910, each American consumed approximately 125 grams daily, but by 1975, this figure had jumped to 147 grams.[16]

The increase in fat consumption has come from foods of vegetable origin. However, animal sources continue to provide the largest proportion of our fat intake.[16]

Graph 15: Fat Content of Total Fat Consumption



Graph 16: Fat Content of Separated Fats and Oils



1 pound = 454 grams

17. WHAT FACTORS COULD HAVE CAUSED THE INCREASE IN THE CONSUMPTION OF VEGETABLE FATS AND OILS? MAY BE DUE TO RISE IN FAST FOOD RESTAURANTS SERVING DEEP FRIED FOODS

18. HOW CAN YOU ACCOUNT FOR THE DECREASE IN THE AMOUNT OF ANIMAL FAT CONSUMED? USING MARGERINE INSTEAD OF BUTTER AND SHORTENING INSTEAD OF LARD

[Permission was granted to reproduce the previous graphs from The Changing American Diet, an 80 page book from the Center for Science in the Public Interest, 1755 S Street, NW., Washington, D.C. 20009.]

Now, let's see what all those yearly consumption figures mean in terms of nutrients eaten daily. Remember that the figures exaggerate the actual intake. However, it is evident that our eating patterns have changed.

APPROXIMATE DAILY FOOD CONSUMPTION

	1910	1950	1976
Calories	3490	3260	3380
Protein	102 grams	95 grams	103 grams
Fat	125 grams	145 grams	147 grams
Carbohydrate	495 grams	402 grams	390 grams

19. FIGURE THE PERCENTAGE CHANGE FROM 1910 TO 1976 FOR EACH OF THE ABOVE.

CALORIES: -3%
PROTEIN: +1%
FAT: +18%
CARBOHYDRATE: -21%
(ALL ANSWERS ROUNDED TO NEAREST PERCENT.)

Review Time

What are trends in our eating patterns?

1. Name four foods that Americans ate more of in 1976 than in 1910.

CHEESE, DRY MILK PRODUCTS, LOW
FAT MILK, VEGETABLES, PROCESSED
FRUIT, SOFT DRINKS, SUGAR, PEANUTS
AND TREE NUTS, BEEF AND VEAL, CHICKEN
TURKEY, VEGETABLE FATS

2. Name four foods that Americans ate less of in 1976 than in 1910.

WHOLE MILK, POTATOES, FRESH
FRUIT, FLOUR AND CEREAL PRODUCTS,
LAMB & MUTTON, DUCKS AND GEESE,
EGGS, ANIMAL FATS

3. Are there any foods that Americans are eating approximately the same amounts of today as they did in 1910? If so, what are they?

CREAM
RICE
DRY BEANS
PORK
EDIBLE OFFALS

A. Compare your own diet to the trends evident in the food consumption graphs. Try to remember the types of foods you and your family ate five or ten years ago. Have your food preferences changed? Is your family's diet typical of the trends?

ANSWERS WILL VARY

B. How has the rise in the number and type of restaurants attributed to the food consumption trends?
FAST FOOD RESTAURANTS:

INCREASE IN FROZEN POTATO USE
INCREASE IN CHICKEN CONSUMPTION
INCREASE IN BEEF CONSUMPTION
INCREASE IN CHEESE CONSUMPTION (CHEESEBURGERS AND PIZZAS)
INCREASE IN SOFT DRINK CONSUMPTION

C. What do you feel is the most important factor influencing changes in the American diet?

ANSWERS WILL VARY

D. Consumption figures show that in 1976, each American drank 493 eight-ounce servings of soft drinks.[10] About how many ounces a day is that? On the average, how many ounces of soft drinks do you consume each day? How does that compare to the national average?

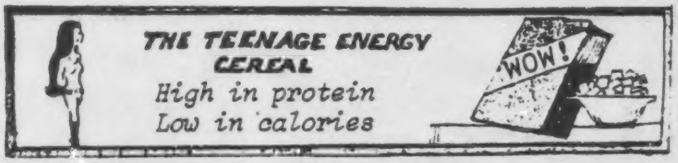
APPROXIMATELY 11 OUNCES A DAY
OTHER ANSWERS WILL VARY

Review Time

Does advertising affect our eating habits?

DESCRIBE THE TYPES OF ADVERTISING APPEALS USED IN EACH OF THE FOLLOWING ADS. WHAT ARE POSSIBLE PROBLEMS ASSOCIATED WITH EACH?

1.



THE TEENAGE ENERGY CEREAL

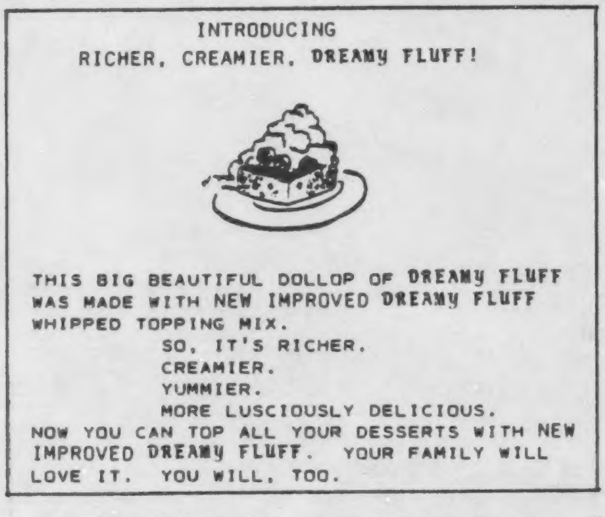
High in protein
Low in calories

APPEALS TO YOUR LOGIC BY SAYING THE CEREAL IS NUTRITIONAL--

"HIGH IN PROTEIN," ENERGY; APPEALS TO DESIRE FOR SLIM FIGURE--

"LOW IN CALORIES"; "HIGH" AND "LOW" ARE NOT DEFINED

2.



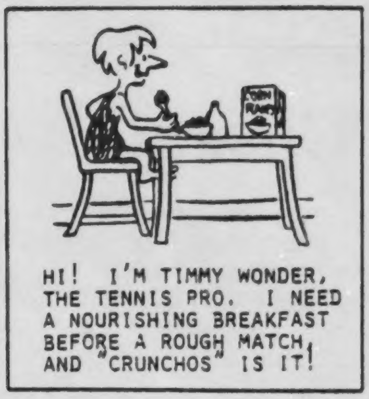
INTRODUCING
RICHER, CREAMIER, DREAMY FLUFF!

THIS BIG BEAUTIFUL DOLLOP OF DREAMY FLUFF WAS MADE WITH NEW IMPROVED DREAMY FLUFF WHIPPED TOPPING MIX.
SO, IT'S RICHER.
CREAMIER.
YUMMIER.
MORE LUSCIOUSLY DELICIOUS.
NOW YOU CAN TOP ALL YOUR DESSERTS WITH NEW IMPROVED DREAMY FLUFF. YOUR FAMILY WILL LOVE IT. YOU WILL, TOO.

APPEALS TO LOGIC--DESIRE FOR GOOD TASTE; "RICHER,"

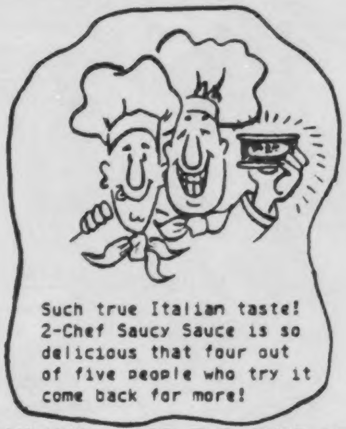
"CREAMIER," "YUMMIER," "MORE LUSCIOUSLY DELICIOUS" THAN WHAT

3.


HI! I'M TIMMY WONDER, THE TENNIS PRO. I NEED A NOURISHING BREAKFAST BEFORE A ROUGH MATCH, AND "CRUNCHOS" IS IT!

ENDORSEMENT--DOESN'T SAY ANYTHING ABOUT CEREAL

4.


Such true Italian taste! 2-Chef Saucy Sauce is so delicious that four out of five people who try it come back for more!

LOGIC--DOESN'T SAY MUCH, ARE THE FOUR PEOPLE ITALIANS WHO LIKE AN ITALIAN TASTE?

A. What eating habits do you have that can be attributed to advertising?

ANSWERS WILL VARY

B. What type of advertisement is most appealing to you? Why?

ANSWERS WILL VARY

C. Do you choose restaurants because of the advertising? If so, why?

ANSWERS WILL VARY

Open and Closed Cases

When controversy is involved, we know that there are at least two sides to that controversy. Should welfare payments be higher? Should America offer increased foreign aid to other nations? Should the Federal government have a consumer protection agency? Should the State sales tax be lowered? There are many controversial questions, and many sides to the arguments.

When we study those questions, we sometimes have a lot of evidence and our values are clear. Thus, we can make a judgment and feel certain that our position is right and responsible. That is a CLOSED CASE. On the other hand, there are many times when the evidence is not clear or it is conflicting. We cannot draw a conclusion in which we can be certain. That is an OPEN CASE. We await more evidence, further research -- meanwhile we might change our way of living, while waiting!

TAKE THE CASE OF SUGAR:

1. What is the major controversy about SUGAR?

ANSWERS WILL VARY

2. Given the evidence provided, is the controversy about SUGAR an OPEN or CLOSED CASE????????

ANSWERS WILL VARY

3. WHY?

ANSWERS WILL VARY

4. If you feel the case is OPEN, what are intelligent, responsible things for YOU to do while awaiting more evidence?

ANSWERS WILL VARY

Write a PRESS RELEASE or a radio SPOT ANNOUNCEMENT about your conclusions on SUGAR.

Open and Closed Cases

You have read about the typical American high fat/low fiber diet on the previous pages. You have noticed the PRO and the CON sides of the arguments surrounding such a diet. Some people feel that we have enough evidence from researchers. They see a CLOSED CASE -- they are willing to make a judgment. Others think that the case is OPEN -- we don't have adequate evidence to make a judgment.

From the material in this PAL, do you think that the case about our high fat/low fiber diet is . . . . . OPEN . . . . . or CLOSED?

WHY?

ANSWERS WILL VARY

Some persons will disagree with you. How can they do that? Didn't you all read the SAME EVIDENCE in this PAL?

ANSWERS WILL VARY

Is it reasonable that good, thinking persons -- reading the same evidence -- will disagree on the conclusions to be drawn from that evidence?

ANSWERS WILL VARY

Review Time

Are there dangers in the typical American's diet?

MATCH BY PLACING THE LETTER OF THE POSSIBLE CAUSE BEFORE EACH HEALTH PROBLEM.
(Some have more than one possible dietary cause.)

CONTRIBUTING CAUSE

A. Too much sugar
B. Too much fat
C. Too little fiber
D. Too much salt
E. Too much food
F. Cigarette smoking

HEALTH PROBLEM

B, E, F 1. Heart Disease
F 2. Lung Cancer
A, C, E 3. Diabetes
B, C 4. Cancer of the Colon
D, E 5. High Blood Pressure
A 6. Dental Decay
A, B, C, E 7. Obesity
C 8. Hemorrhoids
B 9. Hardening of the Arteries
C 10. Varicose Veins

1. Have you ever considered that your present diet may affect your future health?
ANSWERS WILL VARY

2. How do you feel about the Dietary Goals? Should the government be concerned about our eating habits and even urge changes? What are YOU going to do about the Dietary Goals?
ANSWERS WILL VARY

3. Do you foresee any problems if all Americans adopted the Dietary Goals and changed their eating patterns? What impact might this have on various food businesses in our country, including restaurants?
ANSWERS WILL VARY

4. Dr. John Sandson, Dean of the School of Medicine at Boston University, feels that nutrition should be one of the most important subjects taught in medical schools. However, a recent survey found that only 17% of U.S. medical schools required a course in nutrition.[58] How do you feel about this?
ANSWERS WILL VARY

STUDENT PAL

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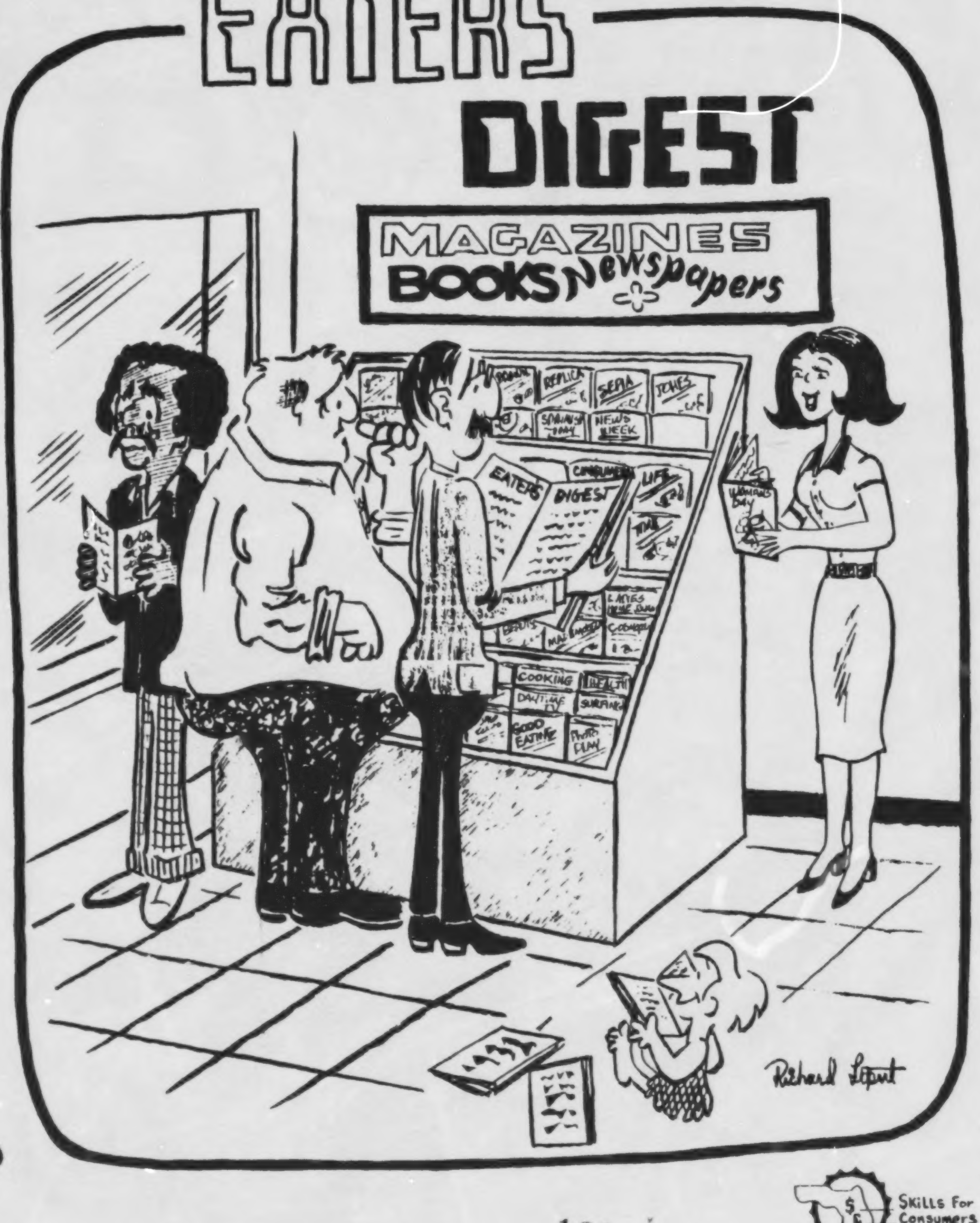
HEALTH SERIES
BALANCED DIET

EATER'S DIGEST


MAGAZINES
BOOKS Newspapers
REPLICA
SEPIA
JOKES
NEWS WEEK
EATER'S DIGEST
CONSUMERS
LIFE
TIME
WOMAN'S DAY
COOKING
HEALTH
SURFING
GOOD EATING
PHOTO PLAY
Richard Lipert

S – Skills For
C – Consumers
A – Applied
T – Today

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WELCOME to this PAL*, a consumer resource booklet. The two characters shown on this page are the Hazzards -- Ms. Happ and Happ Hazzard. You will find them in many of the illustrations used throughout this booklet.

Important information is divided into chapters or sections. Each section begins with a title page and includes:

PASSWORDS which give the special meanings for the words used in that section.

REVIEW TIME exercises to determine what you have learned.

Have fun, study hard, and become a conscientious consumer.

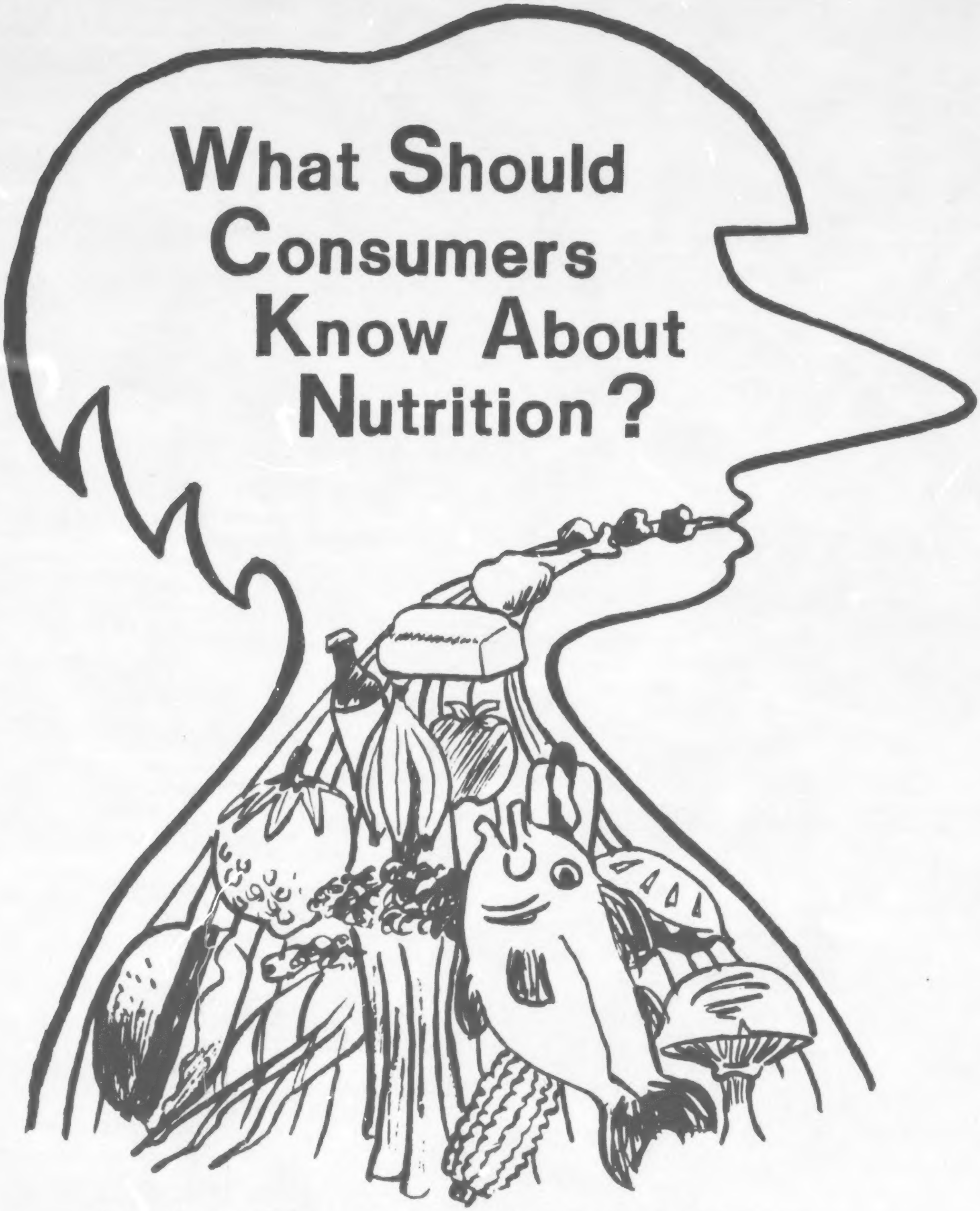
---

*PAL: Packaged Activities for Learning

11203

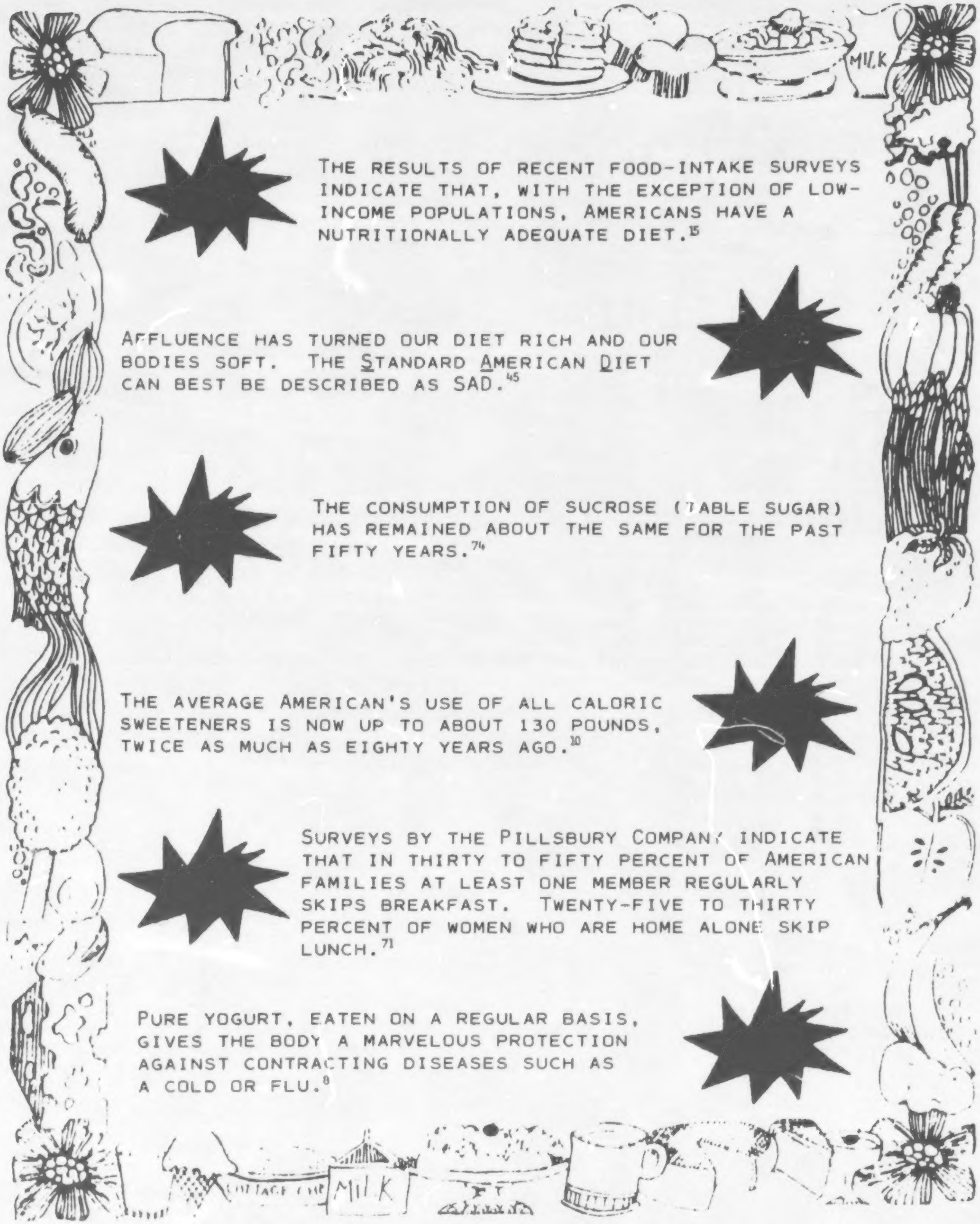
Users of the consumer skills presented in this resource booklet come in both genders, female and male. The text and dialogues sometimes say "he," sometimes "she," sometimes "you," sometimes "the person." Please feel free to substitute the feminine for the masculine pronoun, and vice versa, any time it is appropriate to your situation.

What Should Consumers Know About Nutrition?



Plainly and simply ... A LOT! But do we? We certainly have a lot of information thrown at us. Nutrition has become a national slogan. Articles pop up in magazines and newspapers almost on a daily basis. We are bombarded with information either praising the virtues of certain foods or warning of impending doom from eating other foods. We should eat more of this, less of that, or not any of something else. The list goes on and on. Sometimes nutritionists as well as food faddists quote questionable statistics and give contradictory advice.

Consider these examples: ➡



THE RESULTS OF RECENT FOOD-INTAKE SURVEYS INDICATE THAT, WITH THE EXCEPTION OF LOW-INCOME POPULATIONS, AMERICANS HAVE A NUTRITIONALLY ADEQUATE DIET.[15]

AFFLUENCE HAS TURNED OUR DIET RICH AND OUR BODIES SOFT. THE STANDARD AMERICAN DIET CAN BEST BE DESCRIBED AS SAD.[45]

THE CONSUMPTION OF SUCROSE (TABLE SUGAR) HAS REMAINED ABOUT THE SAME FOR THE PAST FIFTY YEARS.[74]

THE AVERAGE AMERICAN'S USE OF ALL CALORIC SWEETENERS IS NOW UP TO ABOUT 130 POUNDS, TWICE AS MUCH AS EIGHTY YEARS AGO.[10]

SURVEYS BY THE PILLSBURY COMPANY INDICATE THAT IN THIRTY TO FIFTY PERCENT OF AMERICAN FAMILIES AT LEAST ONE MEMBER REGULARLY SKIPS BREAKFAST. TWENTY-FIVE TO THIRTY PERCENT OF WOMEN WHO ARE HOME ALONE SKIP LUNCH.[71]

PURE YOGURT, EATEN ON A REGULAR BASIS, GIVES THE BODY A MARVELOUS PROTECTION AGAINST CONTRACTING DISEASES SUCH AS A COLD OR FLU.[8]

HOW DO YOU FEEL WHEN READING SUCH STATEMENTS?

DO YOU BELIEVE EACH ONE? WHY? WHY NOT?

Words about DIET and EATING

Two lists of words appear below. Divide the class into two parts -- one-half of the class assigned to each list. Try to write out what each word on your list means and what it has to do with EATING IN AMERICA. Then, check it out in a dictionary!

LIST I	LIST II
EAT	DIET
FEED	GRUB
CONSUME	FARE
DEVOUR	VICTUALS
FORAGE	NUTRITION
NUTRITIONIST	CHOW
GLUTTONY	FOOD
GRATIFY	RATIONS
SATISFY	FOOD FADDIST

A set of common phrases about eating is listed below. Think about each one. Do you agree or disagree? Why?

Agree Disagree

_____ _____ 1. "Praise is the best diet for the careful eater."

_____ _____ 2. "Come Ye. Buy and eat soft drinks, cotton candy, caramel corn, taffy, hot dogs, pizza, and fried chicken--every day on Route #19."

_____ _____ 3. "Eat and be merry. Tomorrow will take care of itself."

_____ _____ 4. "Eat to live--don't live to eat."

_____ _____ 5. "At every meeting we sit and eat. At every visit we sit and eat. My life is a lot of sitting and eating."

_____ _____ 6. "Too many Americans are eating the world out of house and home."

_____ _____ 7. "You are what you eat."

Foods I ate during the past twenty-four hours

⇩ ⇩ ⇩ ⇩ ⇩ ⇩

⇧ ⇧ ⇧ ⇧ ⇧ ⇧

Why I ate those foods

You have just indicated your food preferences. You need to think about HOW YOU LEARNED THESE FOOD PREFERENCES.

--What did you learn about PREFERRED FOODS from others?
How did "THEY" teach you food preferences?
(E.G., Liking turkey on Thanksgiving rather than pizza and cranberry sauce!)

--What have you learned FOR YOURSELF ABOUT PREFERRING CERTAIN FOODS OVER OTHERS?
(E.G., Liking cotton candy rather than soy beans at the county fair!)

What you don't know can hurt you!

The Science of Nutrition has been a developing area ever since the first recorded mention of diabetes in 1500 B.C. to the present emphasis on the role of nutrition in preventing diseases.[75] Enormous progress has been made in identifying the nutrients necessary to maintain a HEALTHFUL BODY!

Nutrition research has almost wiped out deficiency diseases in America. Goiter, rickets, scurvy, beriberi, and pellagra are examples of diseases caused when we do not get enough of certain nutrients. Research identified the proper nutrients, and the food industries responded. Salt was iodized, cereals and breads were enriched, milk was fortified with vitamins A and D, and vitamin C was added to beverages.[22] As a result, Americans seldom suffer from deficiency diseases.

However, recent nutrition surveys suggest that many of us, including the rich, are not as well nourished as we might be.[29] To many Americans, eating well means eating a lot! We sense that MALNUTRITION affects only the starving African or Asian. In reality, though, our own bodies may not be getting sufficient nourishment for daily needs. More malnutrition exists in this country than we have any right to expect.[82]

The problem does not seem to be one of poverty, or inability to secure wholesome foods, but one of indifference. Some of us eat "too well" and become dangerously overweight but are still not well nourished. Foods like fruits and vegetables are often lacking in our diets. We go on "diets" and cut out the foods containing important nutrients in order to lose weight. We have poor food habits and make poor food choices.[82]

THERE ARE MANY AMERICANS, WHO, WITHOUT THE EXCUSE OF BEING POOR, MAY PLOD ALONG ON DANGEROUSLY UNBALANCED DIETS.

How did we get to this sorry state of affairs?

Social scientists have studied our eating habits and offer the following theories:

UNTIL WORLD WAR II, CHILDREN USED TO LEARN ABOUT FOOD IN THEIR OWN KITCHEN. THEY HELPED MOM BY SCRUBBING POTATOES, ROLLING PIE CRUST, CLEANING FISH, SHELLING PEAS, ETC. THEN ALONG CAME CONVENIENCE FOODS, AND THE RACE TO LEAVE THE KITCHEN WAS ON. AS A RESULT, AN INFORMAL BUT IMPORTANT SCHOOL IN NUTRITION WAS LOST. UNFORTUNATELY, THIS OCCURRED ABOUT THE SAME TIME THAT THE "KNOWLEDGE EXPLOSION" WAS GREATLY INCREASING THE AMOUNT OF NUTRITION INFORMATION TO BE LEARNED.[61]

IN ADDITION, LIVING PATTERNS OF THE AVERAGE AMERICAN FAMILY HAVE COMPLETELY CHANGED. URBANIZATION AND WOMEN WORKING OUTSIDE OF THE HOME HAVE RESULTED IN FAMILIES EATING TOGETHER LESS AND LESS. ONLY ONE IN FOUR FAMILIES EATS BREAKFAST AS A GROUP. THE EVENING MEAL, ONCE CONSIDERED A FAMILY RITUAL, TAKES PLACE ONLY ABOUT THREE TIMES A WEEK. IT LASTS, ON THE AVERAGE, ONLY TWENTY MINUTES.[61] MANY AMERICANS SIMPLY EAT "ON THE RUN."

Americans are aware of nutrition, but many hold misconceptions. According to four surveys conducted since 1970 for the U.S. Food and Drug Administration, many people have mistaken notions about vitamins, weight control, "health foods," and nutritionally balanced diets.[81]

Each of us, within the context of our family and life style, determines when and what we eat. However, the more knowledge we have about food and nutrition, the more likely we are to develop eating habits that contribute to good health.[72]

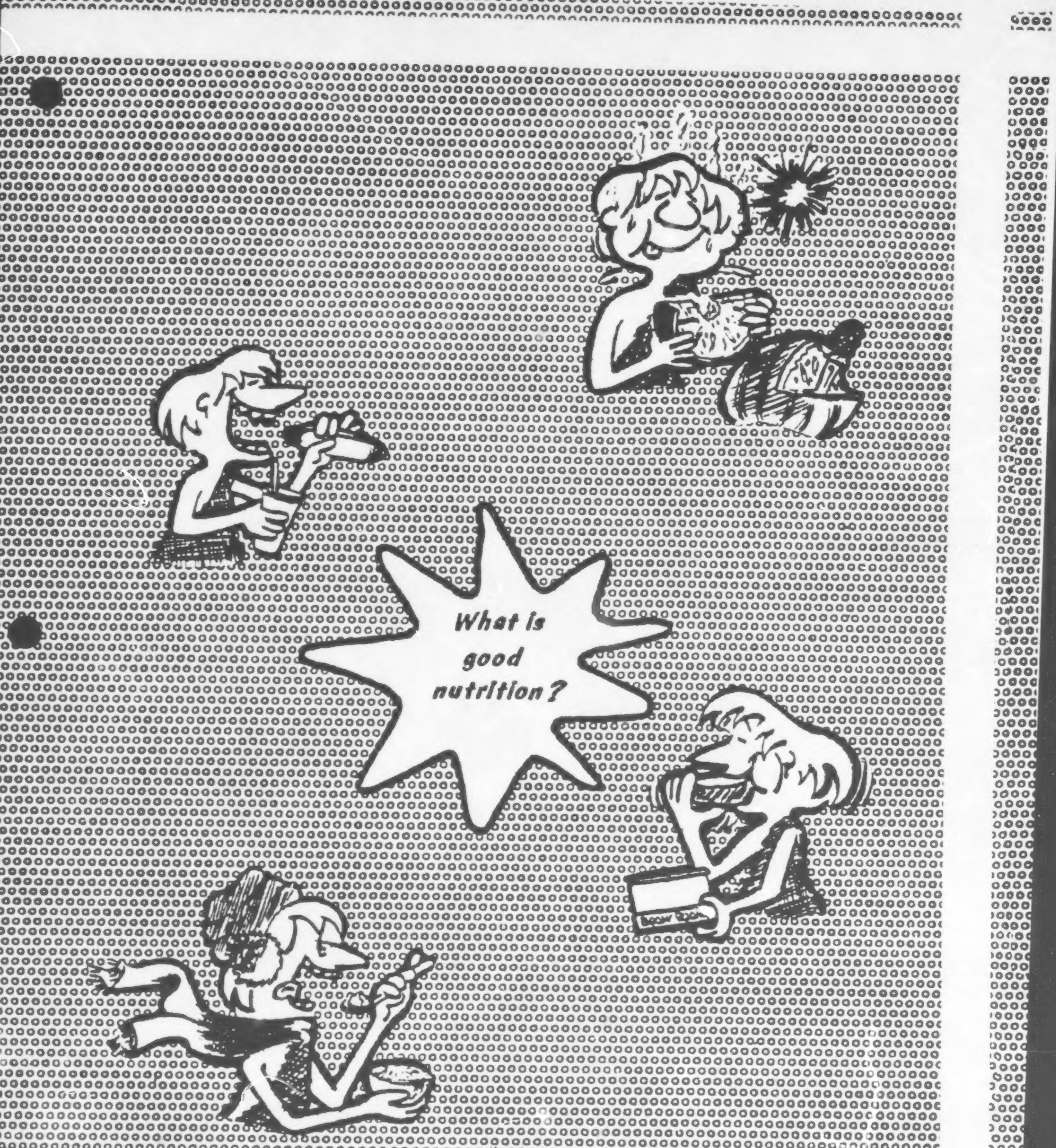
To aid you in making food decisions, this PAL will focus on four areas:

1 ***What is good nutrition?***

2 ***What are trends in our eating patterns?***

3 ***Does advertising affect our eating habits?***

4 ***Are there dangers in the typical American's diet?***



What is good nutrition?

DICTIONARY

passwords ...

What is good nutrition?

BASIC FOUR	*The Four Food Groups; i.e., Milk, Meat, Fruit-Vegetable, Bread-Cereal; eating by the Basic Four means eating a certain number of servings from each of the Four Groups each day*
CALORIE	*Unit for measuring the energy value of a food and of the energy we expend*
ENRICH	*Add specific nutrients to a food as established in a federal standard of identity and quantity (for example: enriched bread); amounts added generally are moderate and include those commonly present at even lower levels*
FAST FOOD	*The type of food that is designed to be served quickly*
FORTIFY	*Add to foods specific nutrients; amounts added are usually in excess of those found normally in the food because of the importance of providing additional amounts of the nutrients to the diet*
MALNUTRITION	*Faulty or inadequate nutrition*
NUTRIENT	*One of the more than 50 known elements of food which promotes bodily growth and development, regulates bodily processes, and supplies energy*
NUTRITION	*The process by which our bodies take in and utilize food substances*
U.S. RDA	*U.S. Recommended Daily Allowances; amounts of nutrients we should eat daily to maintain good health; used on nutrition labeling*

Ready to Move On ?

Do You Know the Passwords ?

YOU ARE WHAT YOU EAT!

EATERS DIGEST

In this land of plenty too many Americans are not eating wisely. The problem is not that we do not have enough to eat, but rather what we are eating.

FOOD IS WHAT YOU EAT. NUTRITION IS HOW YOUR BODY USES FOOD.[33] If you are not eating foods to meet your body needs, you may be suffering from poor nutrition.

Before you decide -- Oh, nothing is wrong with me. I'm healthy! -- consider these facts:

> WHAT A PERSON EATS COULD AFFECT THE LENGTH AND QUALITY OF HIS LIFE.
>
> WHAT A CHILD EATS AFFECTS THE WAY HE GROWS AND DEVELOPS.
>
> WHAT A TEENAGE GIRL EATS TODAY MAY HAVE AN EFFECT ON A LATER PREGNANCY.
>
> WHAT A PREGNANT MOTHER EATS MAY HAVE AN EFFECT ON HER CHILD'S GROWTH AND DEVELOPMENT.[33]

Food is the basis of life. Food is the source of health and well-being. Food gives you energy you need for everyday living. Food affects your weight and height, and even your strength to a great extent.

In other words, everything in life begins with food. There is much to the saying, *"You are what you eat!"*[33]

Food is more than just something to eat!

Food contains protein, carbohydrates, fats, vitamins, minerals, and water. All of these are nutrients: i.e., they nourish the body. Very simply, nutrients are those elements in food which promote body growth and development, regulate body processes, and supply energy. There are at least fifty nutrients which your body needs to function properly. Many, however, are needed in very small amounts. They are found in so many foods that there is no problem in our getting the required amounts.

The summary which follows gives the key nutrients, why each is needed, and what foods are good sources for each. Study the major nutrients carefully. Notice the need for variety in the foods that you eat. *NO ONE FOOD CONTAINS ALL THE ESSENTIAL NUTRIENTS IN THE AMOUNTS REQUIRED FOR GROWTH AND HEALTH.*[27]

THE MAJOR NUTRIENTS

PROTEIN

- ESSENTIAL COMPONENT OF ALL LIVING CELLS.
- BUILDS, REPAIRS, AND MAINTAINS ALL TISSUES.
- NECESSARY TO FORM HORMONES THAT REGULATE BODY PROCESSES AND ANTIBODIES THAT FIGHT INFECTION.
- SUPPLIES ENERGY.[2]

Proteins are combinations of about twenty basic nutrients called amino acids. Most of these can be manufactured by the body from other foods. However, there are eight essential ones that the body cannot produce. These amino acids must be obtained from the diet.[20]

Food protein containing all the essential amino acids is known as COMPLETE and comes from animal sources: meat, fish, poultry, eggs, milk and cheese.

Protein foods deficient in substantial amounts of one or more of the essential amino acids are called INCOMPLETE protein. Foods providing incomplete protein are usually from plant sources, such as nuts and dried peas and beans. Some incomplete protein is also provided by cereals, bread, vegetables, and fruits.

You can combine incomplete protein foods to supply complete protein. For example, beans and rice combinations, popular with some ethnic populations, provide both a good quality and quantity of protein. Other incomplete protein foods can be improved by combining them with some high quality protein. Examples include breakfast cereal with milk, macaroni with cheese, and a peanut butter sandwich with a glass of milk.[56]

CONSUMER → BE AWARE

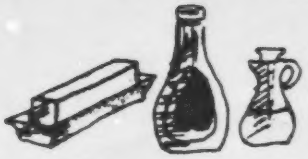
WHEN WE EAT OUR PROTEIN FOOD IS IMPORTANT! OUR BODY CELLS REQUIRE THAT ALL THE AMINO ACIDS BE AVAILABLE CONTINUALLY TO THEM THROUGH OUR BLOOD. THEREFORE, WE NEED TO SPREAD OUR PROTEIN INTAKE OVER THE DAY. THIS HELPS TO MAINTAIN A CONSTANT SUPPLY OF ESSENTIAL AMINO ACIDS. BREAKFAST IS PARTICULARLY IMPORTANT, BUT STUDIES SUGGEST THAT UP TO 50 PERCENT OF AMERICAN CHILDREN EAT BREAKFASTS WHICH ARE RATED POOR. ADULTS OFTEN DO EVEN WORSE.[59]

CARBOHYDRATES

- PRIMARY SOURCE OF ENERGY.
- HELP BODY USE FAT EFFICIENTLY.
- SPARE PROTEIN BY SUPPLYING ENERGY. THEY SAVE PROTEIN FOR TISSUE BUILDING AND REPAIR AND OTHER SPECIAL JOBS.[27]

The carbohydrates which provide nourishment in our foods are the various starches and sugars found in our diet. Good sources of starch include grains (such as wheat, oats, corn, and rice) and products made from grains (such as flour, macaroni, spaghetti, noodles, grits, breads, and breakfast cereals). Starch is also provided by potatoes, sweet potatoes, and dry beans and peas. Major sugar sources include the various kinds of sugar--honey, molasses, and table sugar--and products containing a high percentage of sugar such as jams, syrups, and other sweets.[27]

FATS



- MOST CONCENTRATED SOURCE OF ENERGY.
- SOME SUPPLY ESSENTIAL FATTY ACIDS.
- CARRY THE FAT-SOLUBLE VITAMINS A, D, E, AND K.[27]

Fats supply food energy in a compact form. Weight for weight, they contain about twice as much energy value as carbohydrates. Moderate amounts of fat, stored in the body, protect vital organs by providing a cushion of insulation around them. Fats are plentiful in margarine, butter, shortening, salad oils, cream, mayonnaise, salad dressings, most cheeses, nuts, and bacon.[2]

VITAMINS

Vitamins are relatively new in the science of nutrition. The first vitamin was discovered in 1913.[44] Scientists now list a dozen or more major vitamins that you must have to enjoy good health. Usually they can be obtained from eating a balanced diet. A few of these vitamins are extremely important to your well being.

VITAMIN A

- HELPS EYES ADJUST TO DIM LIGHT.
- HELPS KEEP SKIN SMOOTH.
- HELPS KEEP LINING OF MOUTH, NOSE, THROAT, AND DIGESTIVE TRACT HEALTHY AND RESISTANT TO INFECTION.
- PROMOTES GROWTH.[56]

Vitamin A occurs only in foods of animal origin. However, many vegetables and fruits, particularly the green and yellow ones, contain a substance called carotene that our bodies can change into vitamin A.[27]

Liver is an outstanding source of vitamin A. Other important sources are whole milk, butter, cream, most cheeses, egg yolk, and margarine. Vitamin A is also found in dark green and yellow vegetables and fruits (such as turnip greens, collards, carrots, kale, squash, sweet potatoes, pumpkin, cantaloupe, apricots, and papayas).[3]

THIAMIN — VITAMIN B_1

- HELPS BODY CELLS OBTAIN ENERGY FROM FOOD.
- HELPS KEEP NERVES IN HEALTHY CONDITION.
- PROMOTES GOOD APPETITE AND DIGESTION.[56]

Thiamin is abundant in only a few foods. Good sources include lean pork, some of the organ meats (heart, liver, and kidney), nuts, dry beans and peas, and whole grain and enriched cereals and breads.[33]

RIBOFLAVIN - VITAMIN B_2

- HELPS CELLS USE OXYGEN TO RELEASE ENERGY FROM FOOD.
- HELPS KEEP EYES HEALTHY.
- HELPS KEEP SKIN AROUND MOUTH AND NOSE SMOOTH.[56]

Riboflavin is widely distributed in foods in small amounts. Not many foods contain more than 10 percent of the daily requirement in a serving. Those which do are mainly meats, milk, cheese, eggs, whole grain and enriched cereals and breads, and dark green leafy vegetables.[59]

NIACIN - VITAMIN B_3

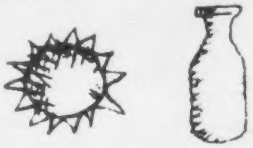
- HELPS CELLS USE OXYGEN TO PRODUCE ENERGY.
- HELPS TO MAINTAIN HEALTH OF SKIN, TONGUE, DIGESTIVE TRACT, AND NERVOUS SYSTEM.[56]

Niacin intake is adequate in most American diets. We tend to eat a lot of nicain-rich foods, such as meats, poultry, fish, cheese, and whole grain and enriched cereals and breads. Lower amounts of niacin are found in greens, peanuts and peanut butter, beans and peas.[59]

VITAMIN C - ASCORBIC ACID

- HELPS HOLD BODY CELLS TOGETHER AND STRENGTHENS BLOOD VESSEL WALLS.
- AIDS IN HEALING WOUNDS.
- ASSISTS IN TOOTH AND BONE FORMATION.[56]

Citrus fruits (oranges, grapefruit, lemons, and their juices) and fresh strawberries are rich in Vitamin C. Other important sources include tomatoes and tomato juice, broccoli, brussels sprouts, cabbage, cantaloupe, cauliflower, and green peppers. Some dark green leafy vegetables such as collards and turnip greens are good sources. In addition, potatoes and sweet potatoes, especially when cooked in the jacket, and watermelon round out the list.[27]



VITAMIN D

- HELPS BODY USE CALCIUM AND PHOSPHORUS TO BUILD STRONG BONES AND TEETH.[56]

Although few foods contain vitamin D, it is readily available in milk fortified with it. Other sources include sardines, salmon, herring, tuna, egg yolk, butter, and liver. In addition, sunlight enables the body to produce vitamin D if it has a chance to shine directly on the skin.[33]

The five vitamins just described (Vitamin A, Thiamin, Riboflavin, Niacin, and Vitamin C) must be listed on nutritional information labels. Percentages of U. S. Recommended Daily Allowances (U.S. RDA) are given for each vitamin to help you plan a balanced diet. There are other important vitamins. However, if you eat a balanced diet containing an adequate amount of the five key vitamins, then you should be getting enough of the other nutrients as well.[59]

MINERALS

There are some eighteen minerals that are essential to the regulation and maintenance of body processes. Any one of these minerals, even in small amounts, can make the difference between well-being and weakness, between health and disease.[2] Three of the most important minerals are calcium, iron, and iodine.

CALCIUM

- BUILDS BONES AND TEETH.
- HELPS BLOOD TO CLOT.
- HELPS NERVES, MUSCLES, AND HEART TO FUNCTION PROPERLY.[56]

An adequate intake of calcium is particularly important for growing children and pregnant and lactating (nursing) women. Everyone, though, needs some of this important mineral in his diet. The basic source for calcium is milk and dairy products such as cheese. Other good sources include green leafy vegetables such as collards, kale, mustard and turnip greens.[19]

IODINE

- HELPS THE THYROID GLAND TO FUNCTION PROPERLY.[56]

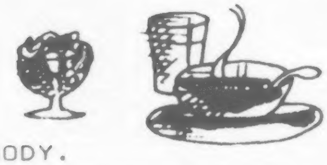
Iodine is needed in extremely small amounts. But, a deficiency of it can cause goiter--a swelling of the thyroid gland. The most practical ways to make certain you are getting enough iodine are to use iodized salt regularly and add seafood to your diet whenever possible.[33]

IRON

- COMBINES WITH PROTEIN TO MAKE HEMOGLOBIN, THE RED SUBSTANCE OF BLOOD WHICH CARRIES OXYGEN FROM THE LUNGS TO MUSCLES, BRAIN, AND OTHER PARTS OF THE BODY.
- HELPS CELLS USE OXYGEN.[56]

Only a few foods provide iron in very useful amounts. Liver, kidney, heart, lean meat, and oysters are generous suppliers. Other good sources include dry beans and peas, green leafy vegetables, dried fruit, egg yolk, and molasses. Whole grain and enriched cereals and breads contain smaller amounts of iron, but when eaten frequently, they become important sources.[27]

WATER



- IMPORTANT PART OF ALL CELLS AND FLUIDS IN BODY.
- CARRIER OF NUTRIENTS TO AND WASTE FROM CELLS IN THE BODY.
- AIDS IN DIGESTION AND ABSORPTION OF FOOD.
- HELPS TO REGULATE BODY TEMPERATURE.[56]

Water is essential for life--only air is more important. The body's need for water is even greater than its need for food. You can live for days, even weeks, without food, but only a few days without water.

There are many sources for water. The most obvious source is simply the water you drink. Water is also present in beverages (coffee, tea, juice, soft drinks, and milk) and soups. Most foods such as vegetables, fruits, meats, and even cereals and breads contain some water.[27]

Am I eating enough of each essential nutrient?

Probably not. Surveys consistently show that Americans need to improve eating habits. In 1965, the U.S. Department of Agriculture made a nationwide survey of household food consumption. They checked particularly to see if necessary amounts of seven nutrients--protein, calcium, iron, vitamin A, thiamin, riboflavin, and vitamin C--were consumed. The results were astonishing. Only fifty percent of the households had a "good" diet![77] Even worse was the fact that this showed a DECLINE from a similar survey in 1955. At that time, sixty percent of the households maintained adequate intakes of those key nutrients.[46]

Other studies found similar results. A review of some twenty-five different studies revealed inadequate intakes of several nutrients. More than half the people surveyed had food intakes less than the recommended amounts of calcium, iron, thiamin, and vitamin C. Almost half of the people lacked niacin. Over forty percent good too little riboflavin. About a third of the subjects were missing required amounts of vitamin A.[24]

THE NUTRIENT FOUND MOST LACKING WAS IRON. THE MOST COMMON DEFICIENCY DISEASE, ESPECIALLY IN WOMEN, IN THE UNITED STATES IS ANEMIA. IT RESULTS FROM THE LACK OF SUFFICIENT IRON IN THE DIET.[3] TEENAGE GIRLS SHOULD BE PARTICULARLY CONCERNED ABOUT THIS. STUDIES SHOW THAT THE AMERICAN FEMALE, FROM AGE NINE TO FIFTY-FIVE IS AT LEAST ONE-THIRD DEFICIENT IN IRON.[24]

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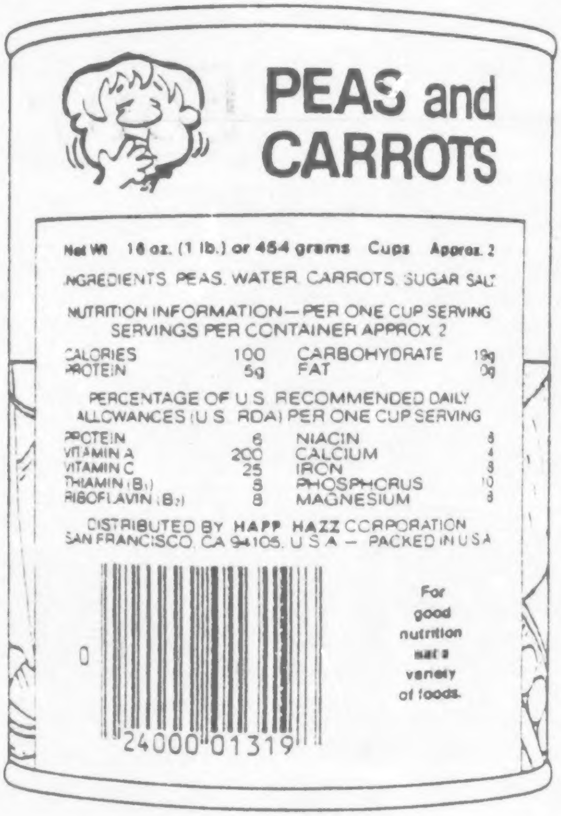
U.S. RDA

U.S. Recommended Daily Allowances (U.S. RDA's) are the amounts of protein and nineteen vitamins and minerals that we should eat every day to keep healthy.[80] These amounts were established by the Food and Drug Administration in 1973 to be used on nutrition labels. On most foods, nutrition labels give the U.S. RDA values for adults and children over four years old.[60]



Net Wt 16 oz. (1 lb.) or 454 grams Cups Approx. 2

NGREDIENTS PEAS. WATER. CARROTS. SUGAR SAL

NUTRITION INFORMATION—PER ONE CUP SERVING
SERVINGS PER CONTAINER APPROX. 2

CALORIES	100	CARBOHYDRATE	19g
PROTEIN	5g	FAT	0g

PERCENTAGE OF U.S. RECOMMENDED DAILY ALLOWANCES (U.S. RDA) PER ONE CUP SERVING

PROTEIN	6	NIACIN	8
VITAMIN A	200	CALCIUM	4
VITAMIN C	25	IRON	8
THIAMIN (B1)	8	PHOSPHORUS	10
RIBOFLAVIN (B2)	8	MAGNESIUM	8

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For good nutrition eat a variety of foods.

Nutrition information must appear on foods that are enriched and fortified, or on foods for which a nutritional claim is made. Food processors may also voluntarily print nutrition information on other foods.

All nutrition information must follow a standard format. The information includes the size of a serving and the total number of servings in the container.

The number of calories and the weight in grams of protein, carbohydrate, and fat are listed per serving. Processors may also include the fat content and amount of cholesterol and sodium.

Every nutrition information panel gives the percentage of the U.S. RDA for protein, five vitamins, and two minerals. Percentages for an additional 12 vitamins and minerals may also be listed.[60]

Basically, then, all we need to do is add numbers. We simply add the grams for protein, carbohydrate, and fat until we eat recommended amounts. Of course, we need to keep track of calories, too. We also need to consume at least 100 percent of each of the essential nutrients. Unfortunately, adding up numbers on nutrition labels is not always easy to do! School cafeterias do not label their food with U.S. RDA's. Neither do restaurants. Some food we buy from supermarkets does not contain nutrition information.

There must be a better and easier way to eat sensibly and still insure our bodies of getting adequate nourishment. Happily, there is!

Eat a Balanced Diet!

The Basic Four

An easy way to make sure we eat foods that will provide the amounts of nutrients specified in the U.S. RDA's is to eat by THE BASIC FOUR!

Basically, this system simply divides foods into four groups on the basis of their similarity in nutrient content. Here they are and their important contributions:

THE DAIRY GROUP: Protein, calcium, and riboflavin

THE MEAT GROUP: Protein, iron, niacin, thiamin

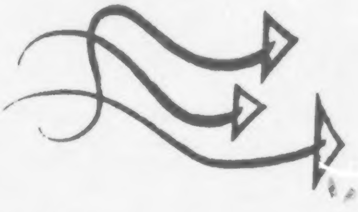
THE FRUIT AND VEGETABLE GROUP: Fiber, vitamins, minerals

THE BREAD AND CEREAL GROUP: Thiamin, riboflavin, niacin, iron [5,77]

The key to making this system work is VARIETY -- EVERY DAY! This is important since NO SINGLE FOOD HAS ALL THE NUTRIENTS YOUR BODY REQUIRES.[27]

?
FRUITS ? ?
? VEGETABLES
MILK
MEATS ?
DAIRY FOODS

Eating with the Basic Four is not only sensible, but EASY! Here's how a day's eating ought to look:



The Milk Group

2 to 4 cups daily

SERVING = 8 OZ. MILK

(Adults need 2 c., teenagers need 4 c.)

1-inch cube cheddar-type cheese, 2/3 c. cottage cheese or ice milk, or 1 c. ice cream may replace 1/2 c. of fluid milk.

The Vegetable-Fruit Group

4 servings daily

SERVING = 1/2 CUP, RAW OR COOKED, OR 1 PORTION (1 MEDIUM APPLE, BANANA, POTATO, OR 1/2 GRAPEFRUIT OR CANTALOUPE)

Include at least one important source of Vitamin C daily and Vitamin A every other day.

The Bread-Cereal Group

4 servings daily

SERVING = 1 SLICE BREAD, 1 OZ. CEREAL, OR 1/2 TO 3/4 CUP COOKED CEREAL, CORNMEAL, GRITS, MACARONI, NOODLES, RICE, OR SPAGHETTI

Count only if whole grain or enriched.

The Meat Group

2 servings daily

SERVING = 2 TO 3 OZ. OF LEAN COOKED MEAT, POULTRY, OR FISH, 2 EGGS, 1 C. COOKED DRY BEANS OR PEAS, 4 TBS. PEANUT BUTTER, 1/3 TO 1/2 C. NUTS, OR 2 OZ. CHEESE

Cheese may be counted in the meat group if not used as part of the milk group.

In addition to eating by the basic four, you need daily the equivalent of 2-4 tablespoons of fats and 3-5 cups of fluids.[82]

On the following page is a blank chart. It breaks a week's eating into the four food groups. Use the list given below. Place as many of these food items as you can in the correct place on the blank chart. Then answer the questions below the chart.

A WEEK OF EATING

	MORNING	NOON	EVENING	SNACK
MONDAY	Vegetable juice cocktail Fried egg Toast/butter Milk	Tacos, containing ground beef, shredded cheese and lettuce Apple Milk	Mushroom cheese pizza Mixed green salad Italian dressing Ice Cream Milk	Cola Peanuts
TUESDAY	Orange juice Scrambled eggs English muffin/butter/jam Milk	Clam chowder Hamburger on roll with lettuce/tomato/ketchup Banana Soda	Fried chicken Corn-on-the-cob Celery/carrot sticks Bread/margarine Dark sweet cherries Milk	Milk Candy bar
WEDNESDAY	Tomato juice Corn flakes Toast/butter Milk	Cheeseburger Fries Thick Shake	Sphagetti with tomato sauce Meatballs Mixed green salad with dressing Garlic bread Milk	Soda Popcorn
THURSDAY	Bacon Pancakes/syrup Butter Milk	Peanut butter and jelly sandwich Banana Milk	Roast pork Baked potato Applesauce Gelatin dessert Lemonade	Ice cream sundae
FRIDAY	Apple juice Bagel with cream cheese Milk	Beef chili Fruit salad plate Corn muffin/margarine Iced tea	Broiled fish Green beans Parsley potatoes Gingerbread Milk	Milk Cookie
SATURDAY	Bran flakes Toast/butter Cantaloupe Milk	Hot dog sandwich Baked beans Cole slaw Fruit cocktail Milk	Beans and rice casserole Broccoli Carrot-raisin salad Cornbread/butter Milk	Milk Doughnut
SUNDAY	Orange juice 2 doughnuts Milk	Tomato soup Tuna salad sandwich Banana Milk	Baked ham Sweet potatoes Green beans Lettuce wedge/French dressing Pumpkin pie Milk	Milk Cheese and crackers

	MILK AND MILK PRODUCTS 4 servings daily	**VEGETABLES AND FRUITS** 4 servings daily	**BREADS AND CEREALS** 4 servings daily	**MEAT GROUP** 2 servings daily
MON				
TUES				
WED				
THURS				
FRI				
SAT				
SUN				

1. On which days was a "balanced diet" eaten? On the "unbalanced" days, what food groups were deficient? How could the diet be changed to improve it?
2. Was a protein food included in every breakfast?
3. What iron-rich foods were consumed? Was enough calcium consumed?
4. Was a rich vitamin C food eaten daily?

THE DANGEROUS MYTH:

If something is good, more must be better

Vitamins are unquestionably important to health. But for years their benefits have been glamorized. Their potential dangers have gone nearly unnoticed.

Millions of Americans were taught that vitamin C prevented scurvy, vitamin D prevented rickets, and pellagra and beriberi occurred when vitamin B was lacking.

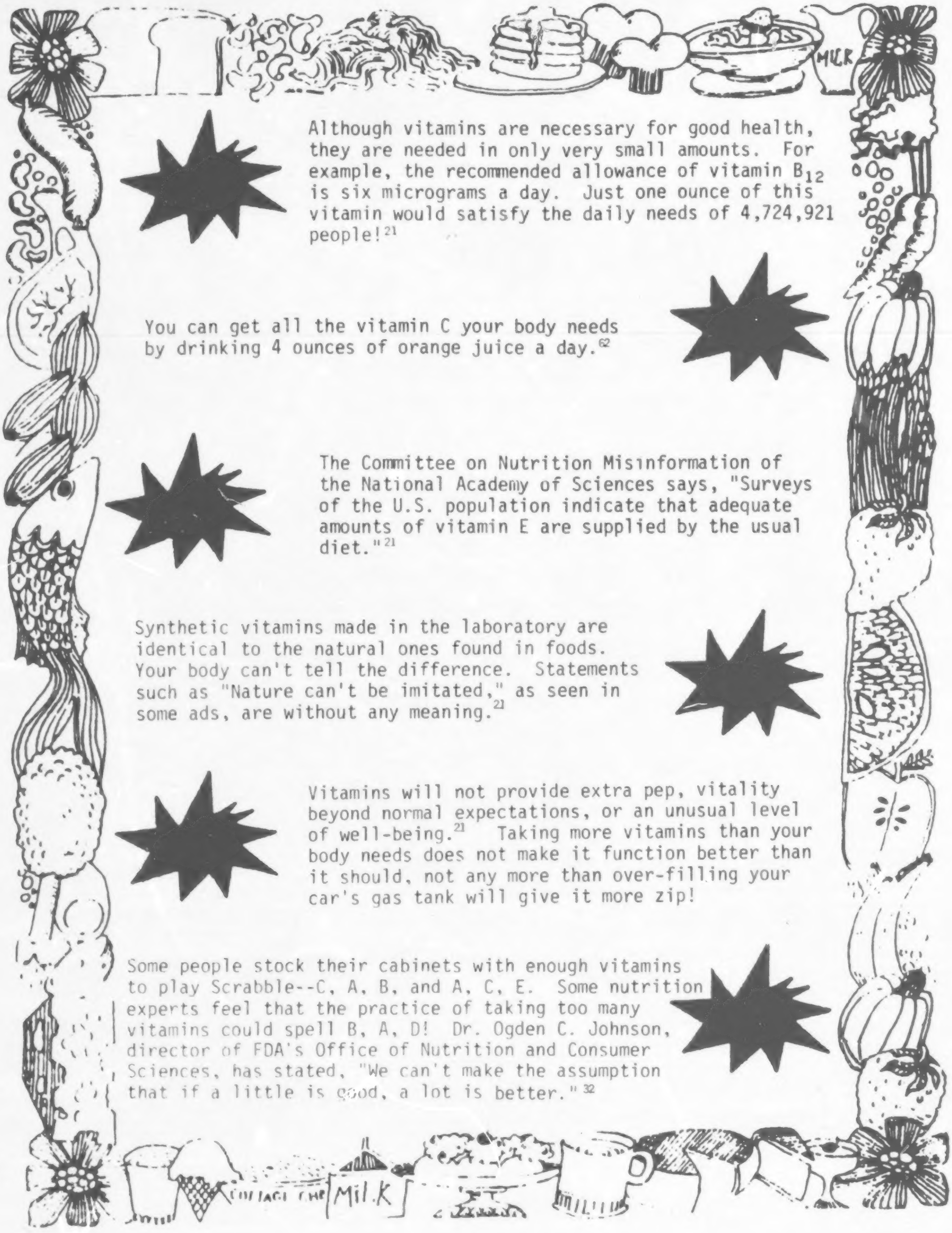
More recently, Americans have been told that vitamin C can prevent colds.[54] Vitamin E is proclaimed to cure skin problems and increase sexual powers.[78]

Whatever the eventual truth of these claims may prove to be, the effect has been to add more needless pill-popping to our society. Americans are great believers in insurance. Each day, "just to be sure," millions of Americans swallow their multivitamins and wait for super-health to occur.

✓ APPARENTLY A 4-YEAR OLD KANSAS BOY COULDN'T WAIT TO GROW UP BIG AND STRONG. HE SWALLOWED A BOTTLE FULL OF 40 CHILDREN'S MULTIVITAMINS AT ONCE. FOR 2 DAYS HE STAYED IN THE INTENSIVE CARE WARD WITH VITAMIN A AND IRON POISONING.[37]

✓ VITAMIN A DEFICIENCY RESULTS IN NIGHT BLINDNESS, A LOWERED RESISTANCE TO INFECTION, AND DRY, ROUGH, ITCHING SKIN.[44] BUT TOO MUCH VITAMIN A ALSO CAUSES PROBLEMS SUCH AS HEADACHE, NAUSEA, AND IRRITABILITY. MORE SEVERE AILMENTS CAN BE GROWTH RETARDATION IN CHILDREN, ENLARGEMENT OF THE LIVER AND SPLEEN, RHEUMATIC PAIN, LOSS OF HAIR, BONE PAIN, AND DISTURBANCE OF THE MENSTRUAL CYCLE.[55] EXCESSIVE AND PROLONGED VITAMIN A INTAKE CAN CAUSE PRESSURE WITHIN THE SKULL THAT MIMICS A BRAIN TUMOR, NECESSITATING SURGERY FOR A NON-EXISTENT TUMOR![79]

✓ EXCESSIVE INTAKE OF VITAMIN D CAN RESULT IN NAUSEA, WEAKNESS, WEIGHT LOSS, EXCESSIVE URINATION, CONSTIPATION, STIFFNESS, PREMATURE CALCIFICATION OF THE BONES, HYPERTENSION, AND IRREVERSIBLE FAILURE OF KIDNEY FUNCTION.[55]



Although vitamins are necessary for good health, they are needed in only very small amounts. For example, the recommended allowance of vitamin B_{12} is six micrograms a day. Just one ounce of this vitamin would satisfy the daily needs of 4,724,921 people![21]

You can get all the vitamin C your body needs by drinking 4 ounces of orange juice a day.[62]

The Committee on Nutrition Misinformation of the National Academy of Sciences says, "Surveys of the U.S. population indicate that adequate amounts of vitamin E are supplied by the usual diet."[21]

Synthetic vitamins made in the laboratory are identical to the natural ones found in foods. Your body can't tell the difference. Statements such as "Nature can't be imitated," as seen in some ads, are without any meaning.[21]

Vitamins will not provide extra pep, vitality beyond normal expectations, or an unusual level of well-being.[21] Taking more vitamins than your body needs does not make it function better than it should, not any more than over-filling your car's gas tank will give it more zip!

Some people stock their cabinets with enough vitamins to play Scrabble--C, A, B, and A, C, E. Some nutrition experts feel that the practice of taking too many vitamins could spell B, A, D! Dr. Ogden C. Johnson, director of FDA's Office of Nutrition and Consumer Sciences, has stated, "We can't make the assumption that if a little is good, a lot is better."[32]

Calories

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Probably no word in nutrition is used more than CALORIES! Just about everyone is concerned about eating too many calories and becoming fat.

Calorie is the unit for measuring the energy value of a food and of the energy we expend. It is expressed in terms of heat.[59]

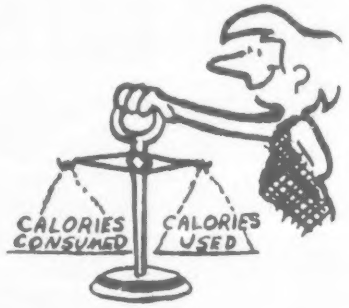
To find caloric values, researchers burn food under controlled conditions and calculate the heat produced. For instance, the energy in a slice of bread would bring almost a quart of water to a boil. A small steak's energy would boil two gallons. The energy in one pound of stored body fat would boil more than 13 gallons![59]

Each day we consume hundreds of calories. We also use up hundreds of calories for everything we do, from breathing to running to sleeping. This is where *BALANCE* is so important. The food calories eaten must be just enough to offset calories used. *INTAKE* must equal *OUTGO* to maintain the same weight. If we eat more than necessary, the surplus piles up as body fat! The source of the calories makes no difference. Extra calories from protein, carbohydrates or fats invariably end up as extra *FAT*. On the other hand, expending more calories than eaten should make us slim and trim again!

The following chart shows how to figure calorie needs. Simply multiply your weight by the calorie guide number. Notice that the average weight and calorie need are shown for each group. But the ideal weight and food intake varies considerably among individuals. A person who does heavy work should increase the calorie number by 25 percent or more, after multiplying. A person who does light work should decrease the calorie number by ten percent or more.[59]

AVERAGE CALORIE NEEDS FOR NORMAL INDIVIDUALS

	Average Weight	To Get Calories Needed Multiply By	Average Calories
Child, 1-3 yrs.	28 pounds	46	1,300
Child, 4-6 yrs.	44 pounds	41	1,800
Child, 7-10 yrs.	66 pounds	36	2,400
Male, 11-14 yrs.	97 pounds	29	2,800
Male, 15-18 yrs.	134 pounds	22½	3,000
Male, 19-22 yrs.	147 pounds	20½	3,000
Male, 23-50 yrs.	154 pounds	17½	2,700
Male, over 50 yrs.	154 pounds	15½	2,400
Female, 11-14 yrs.	97 pounds	25	2,400
Female, 15-18 yrs.	119 pounds	18	2,100
Female, 19-22 yrs.	128 pounds	16½	2,100
Female, 23-50 yrs.	128 pounds	15½	2,000
Female, Over 50 yrs.	128 pounds	14	1,800



HOW MANY CALORIES A DAY
DO YOU NEED?

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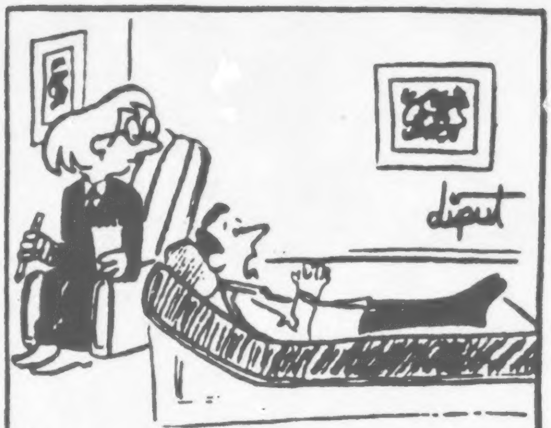
How Nutritious Are Fast-Food Meals?



"I HAVE THIS DREAM, DOC, IN WHICH I'M A GIANT HAMBURGER BEING CHASED BY A FUNNY LOOKING CLOWN WITH A VERY HUNGRY LOOK IN HIS EYES."

If present trends continue, in the very near future, Americans will be eating half their meals outside the home, often at one of the fast food restaurants.[39] Therefore, it's important to check out the nutritional value of fast food favorites.

First, be assured: all fast foods contain nutrients in some quantity. Several studies have been conducted to analyze typical fast food meals. Here are some of the findings:

- A TYPICAL MEAL OF HAMBURGER, FRENCH FRIES, AND A VANILLA SHAKE PROVIDES FROM 46 TO 54 PERCENT OF THE U.S. RDA FOR PROTEIN AND FROM 35 TO 42 PERCENT FOR CALCIUM. THESE AMOUNTS INCREASE IF YOU CHOOSE A SPECIALTY HAMBURGER--FROM 71 TO 82 PERCENT FOR PROTEIN AND 42 TO 47 PERCENT FOR CALCIUM.[4] ADD CHEESE TO THE SPECIALTY AND THE FIGURES GO UP TO 80 PERCENT FOR PROTEIN AND 60 PERCENT FOR CALCIUM.[26]

- NEARLY ALL THE TYPICAL FAST FOOD MEALS ARE HEAVY ON CALORIES. THE HAMBURGER MEALS DESCRIBED ABOVE CONTAIN 758 TO 1091 CALORIES, DEPENDING UPON WHICH HAMBURGER IS EATEN.[4,26]

- MANY OF THE CALORIES ARE IN THE DRINKS. COLAS AVERAGE 111 CALORIES AND THICK SHAKES, 334. MANY OF THESE CALORIES CONSIST ENTIRELY OF SUGAR AND OTHER SWEETENERS.[39]

- A 3-PIECE CHICKEN DINNER (3 PIECES OF CHICKEN, MASHED POTATOES AND GRAVY, COLESLAW, AND ROLL) CONTAINS 80 PERCENT OF THE NEEDED PROTEIN, BUT ALSO 830 CALORIES.[26]

- ONE-HALF OF A 10-INCH THICK CRUST PEPPERONI PIZZA SUPPLIES 50 PERCENT OF REQUIRED PROTEIN AND 560 CALORIES.[26] EAT HALF OF A GOURMET PIZZA, AND YOU CONSUME MORE THAN HALF OF YOUR PROTEIN REQUIREMENT.[39]

- ALL FAST FOOD MEALS ARE DEFICIENT IN A FEW IMPORTANT NUTRIENTS CONSIDERED ESSENTIAL IN A BALANCED DIET.[39] IT'S IMPORTANT TO MAKE UP THE MISSING NUTRIENTS BY INCLUDING VEGETABLES, FRUITS, AND POSSIBLY DAIRY PRODUCTS IN OTHER MEALS DURING THE DAY.

Review Time

What is good nutrition?

MATCH BY WRITING THE LETTER OF THE CORRECT FUNCTION BEFORE EACH NUTRIENT:

_____ 1. Fats

_____ 2. Vitamin C

_____ 3. Iodine

_____ 4. Protein

_____ 5. Vitamin A

_____ 6. Vitamin D

_____ 7. Iron

_____ 8. Carbohydrates

_____ 9. B Vitamins

_____10. Water

_____11. Calcium

A. Necessary for the health of teeth, gums, and blood vessels

B. Helps the body build strong bones and teeth

C. Most concentrated source of energy

D. Absolutely essential for strong teeth and bones, for blood clotting, and for healthy nerve and muscle activity

E. Help body cells obtain energy from food and keep skin and nerves healthy

F. Builds, repairs, and maintains all tissues

G. Essential for growth, for vision, for healthy skin, and for resistance to infection

H. Helps the body use fat and spares protein for body building and repair

I. Helps the body make hemoglobin and helps cells use oxygen

J. Needed for proper functioning of the thyroid gland

K. An essential part of all body tissues and also helps regulate body temperature

A. Many nutritionists feel that THE BASIC FOUR is too simple an approach to good eating. They advocate eating by the "basic six" or some other plan. What do you think? Can you easily get all the essential nutrients by paying close attention to only four food groups? Are there some foods that are too difficult to categorize?

B. How can Americans get "turned on" to eating adequate breakfasts?

C. How can fast food meals be incorporated into a "balanced diet"?

D. Do you eat a "balanced diet"? If not, why not? What can you do to improve your eating habits?

E. Consider one item which many of us purchase -- **Vitamins**.

What do we want when we purchase VITAMIN PILLS? What do we want them to do for us? What are our goals in using them?

What are different ways we can make sure we are getting enough vitamins in our diet?

Study vitamin pill advertisements on TV, radio, and in the newspapers. Why do they say we should take vitamin pills? What do they tell us about HOW to select the BEST product to purchase?

Do you think vitamin advertising has had an effect on making Americans so vitamin-conscious?

Talk with health care professionals in your community about vitamin pills. What do they tell you?

After looking at the various issues concerning vitamin pills, can you make a decision? Are vitamin pills the best way to make sure YOU get enough vitamins?

The Basic Four and Ethnicity

Look up the word ETHNICITY in the dictionary. What does it mean?

ETHNICITY: ______________________________

____

____

In America, there are a lot of different ethnic groups. One part of ethnic difference is expressed in the area of FOODS. Ethnic groups have different food traditions. They have traditionally prepared and eaten foods which are different from those of others.

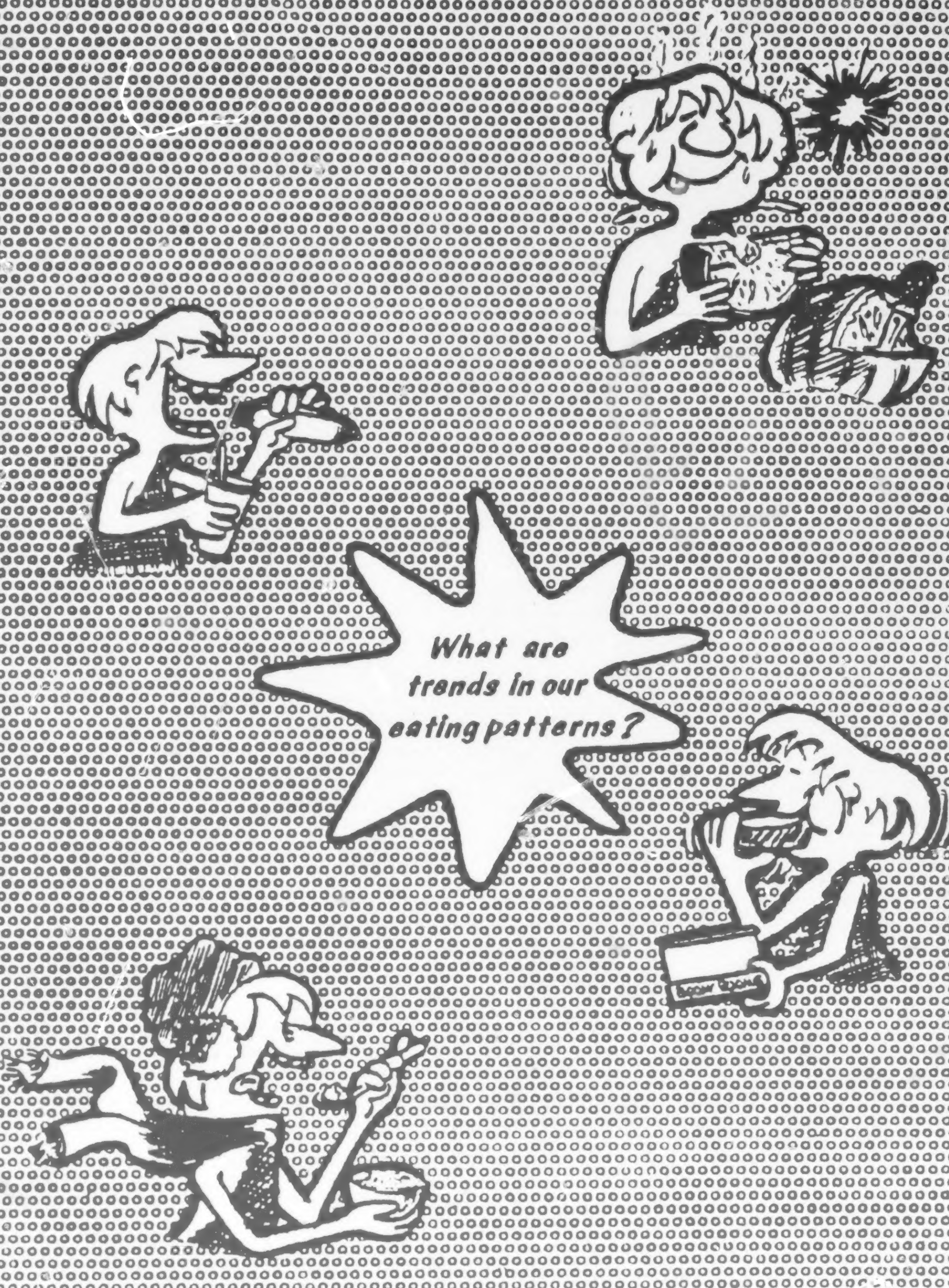
LIST SOME ETHNIC FOODS IN AMERICA:

______________	______________
______________	______________
______________	______________
______________	______________
______________	______________
______________	______________
______________	______________

Interview someone in your community who you consider to be a fine member of an ethnic tradition -- or visit the owner of an ethnic restaurant. Write down some of the important dishes or meals served. Note the ingredients as well, and place these food items into the BASIC FOUR.

KEY QUESTION: *IS IT POSSIBLE TO EAT QUITE DIFFERENTLY IN AMERICA AND STILL HAVE A WELL-BALANCED DIET?*

Can a person eat raw fish and seaweed for breakfast and still be on the way to a balanced diet for that day?


What are trends in our eating patterns?

DICTIONARY

passwords ...

What are trends in our eating patterns?

ANTHROPOLOGIST	*Person who studies man and all aspects of mankind, including characteristics, customs, and habits*
CITRUS	*Fruits with a thick rind and acid flesh, such as oranges, lemons, and grapefruit*
FOOD CONSUMPTION FIGURES	*Amount of food disappearing from the marketplace each year; does not take into account food purchased but not actually eaten*
TREND	*Shift in preferences*

Ready to Move On?

Do You Know the Passwords?

Trends in the American Diet

We Americans love to eat. We love nothing better than eating lots of our favorite foods.

Anthropologists tell us that people's food habits change very slowly. Yet, could you imagine our great-grandparents' reactions if they could spend just one day eating with us? Our diet is quite different from the typical diet at the beginning of this century. Of course, we still eat many of the same foods (such as meat, milk, vegetables, fruits, honey, etc.). But we also eat large quantities of foods unknown in the early 1900's. Soft drinks, frozen French fries, and instant breakfasts are just a few of the products of our industrial age.

Many factors have contributed to changes in our eating patterns:

- NEW TECHNOLOGIES: ADVANCES SUCH AS FREEZING, DEHYDRATION, AND FOOD ADDITIVES HAVE GIVEN US FROZEN JUICES, DRIED SOUP MIXES, AND EVEN IMITATION EGGS.
- AFFLUENCE: AS PEOPLE EARNED MORE MONEY, MEAT, CHICKEN, AND SWEETS BECAME MORE APPETIZING THAN BREAD AND POTATOES.
- GOVERNMENT PROGRAMS: FEDERAL PROGRAMS SUCH AS FOOD STAMPS, SCHOOL LUNCHES AND BREAKFASTS, AND GROUP LUNCHES FOR THE ELDERLY HAVE HELPED MAKE MORE FOOD AVAILABLE TO MORE PEOPLE.
- WORKING PARENTS: THE RISE IN THE NUMBER OF PARENTS WORKING OUTSIDE THE HOME, PARTICULARLY THE MOTHERS, HAS CONTRIBUTED TO THE USE OF CONVENIENCE PRODUCTS.
- END OF THE BABY BOOM: THE DECLINING BIRTH RATE HAS CAUSED A CORRESPONDING DECLINE IN THE CONSUMPTION OF FOODS CHILDREN NORMALLY EAT (SUCH AS BABY FOODS, CANDY, AND MILK). IT HAS ALSO CAUSED A RISE IN "ADULT" FOODS SUCH AS ALCOHOLIC BEVERAGES, SHELLFISH, AND BROCCOLI.
- HEALTH CONCERNS: A 1976 SURVEY OF THE UNITED STATES DEPARTMENT OF AGRICULTURE (USDA) FOUND THAT ABOUT 25 PERCENT OF AMERICAN HOUSEHOLDS HAD CHANGED THEIR DIET AS A RESULT OF A HEALTH PROBLEM (OVERWEIGHT, HIGH BLOOD PRESSURE, ETC.). IN ADDITION, ANOTHER 25 PERCENT WERE NOW CHOOSING DIFFERENT FOODS AND BEVERAGES TO PREVENT SUCH PROBLEMS.[10]

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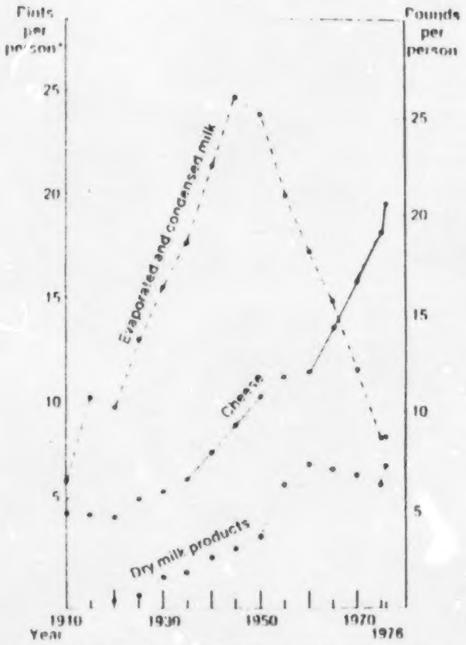
Exactly what changes have occurred in our diet? The Center for Science in the Public Interest, a nonprofit consumer organization, has prepared graphs showing food consumption for many commonly eaten foods. Data was provided by the United States Department of Agriculture. To calculate how much the "average" American eats, USDA divides total U.S. consumption by the July 1 population of that year. The resulting average per person is really an approximation. It is impossible to know how much of the food disappearing from the marketplace (the consumption figure) was actually eaten by the consumer. Because food that is spoiled, wasted, or fed to pets is not taken into account, the figures may exaggerate actual intake of food by roughly 25 to 30 percent.[10]

STUDY THE GRAPHS CAREFULLY. THEN ANSWER THE QUESTIONS FOLLOWING THEM.

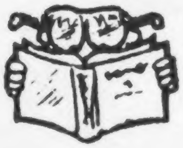
Graph 1: Cheese and Milk Product Consumption



*apply to evaporated and condensed milk only

1 pint = .47 liters (470 milliliters)

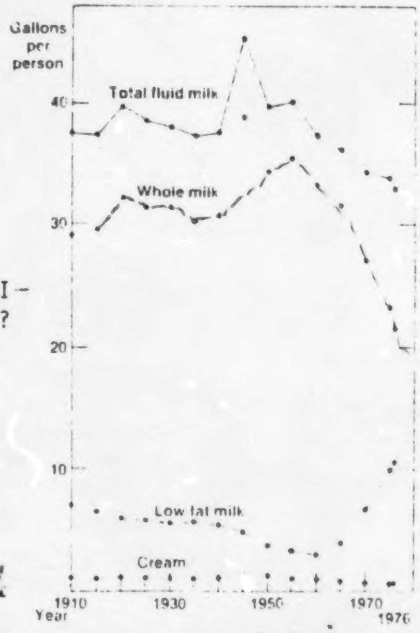
1 pound = 454 grams



1. HOW MANY POUNDS OF CHEESE DID AMERICANS EAT IN 1976? HOW DOES THAT FIGURE COMPARE TO 1910?

2. WHAT HAS BEEN THE PATTERN IN THE USE OF CANNED MILK? WHY DO YOU THINK THIS HAS OCCURRED?

Graph 2: Milk Consumption



1 gallon = 3.79 liters

3. IN WHAT YEAR DID WE AMERICANS DRINK THE MOST MILK?

4. WHAT TRENDS ARE EVIDENT IN OUR MILK CONSUMPTION? WHY DO YOU THINK THIS IS OCCURRING?

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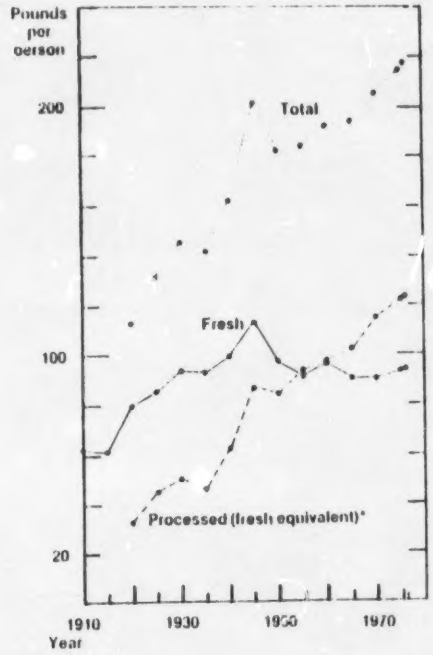
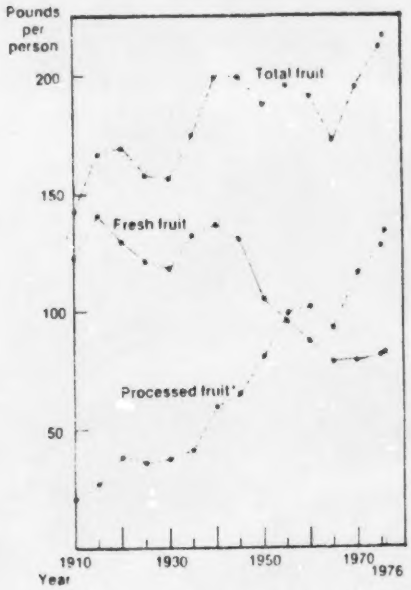
Graph 3: Vegetable Consumption



5. WHAT FACTORS COULD HAVE CONTRIBUTED TO THE RISE IN VEGETABLE CONSUMPTION?

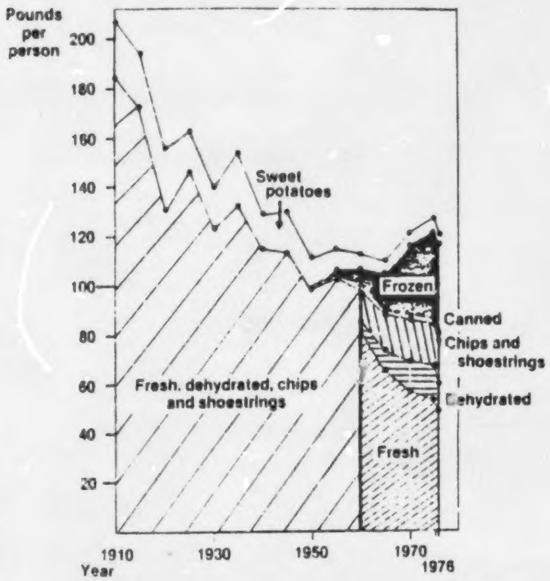
Graph 5: Fruit Consumption



8. WHAT ARE THE TRENDS IN FRUIT CONSUMPTION?

9. IN WHAT YEAR WAS THERE A DECLINE IN CITRUS PROCESSED FRUIT CONSUMPTION? WHAT COULD HAVE CAUSED THIS?

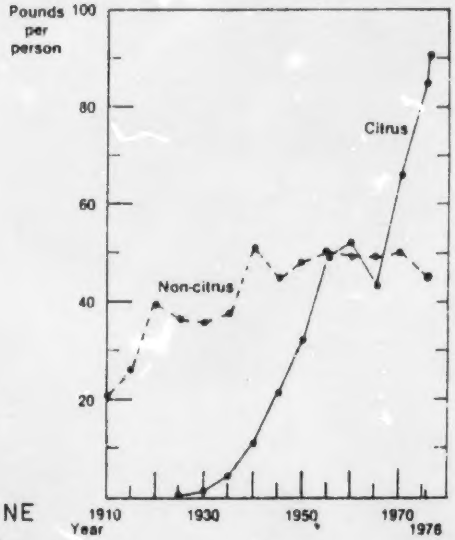
Graph 4: Potato Consumption



6. HOW DOES THE 1976 DATA FOR POTATO CONSUMPTION COMPARE WITH THAT FOR 1910?

7. WHAT HAVE BEEN THE TRENDS IN POTATO CONSUMPTION SINCE 1960? WHY?

Graph 6: Processed Fruit Consumption



2.2 pounds = 1 kilogram

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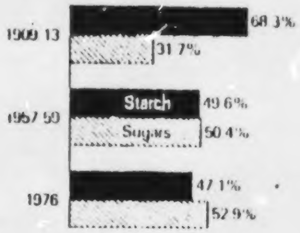
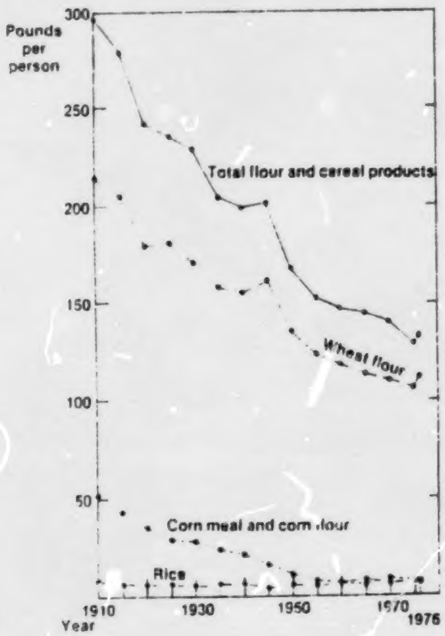
Perhaps the most striking change in the typical American diet has been the dramatic decline in our carbohydrate intake. In 1910, Americans averaged 492 grams of carbohydrate per person each day. This figure had dropped to 374 grams by the 1960's. In 1976, carbohydrate intake had increased to 390 grams daily. This is still about 100 grams less than our great-grandparents consumed![10]

Graph 7: Sources of Carbohydrates



Graph 8: Flour and Cereal Product Consumption

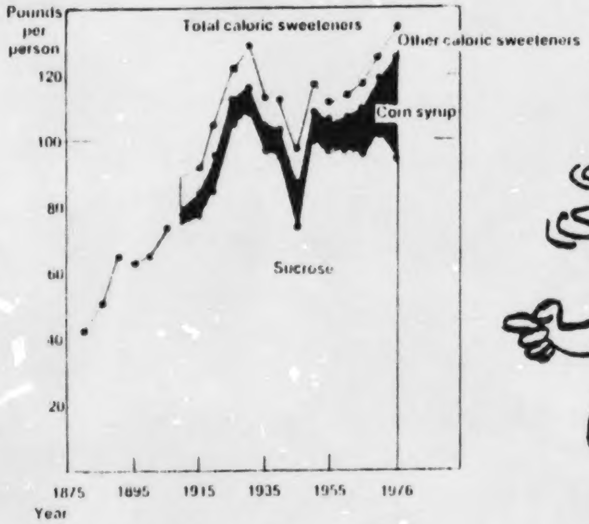


STUDY GRAPHS 7 - 10:

10. WHAT TRENDS ARE EVIDENT IN OUR CARBOHYDRATE CONSUMPTION?

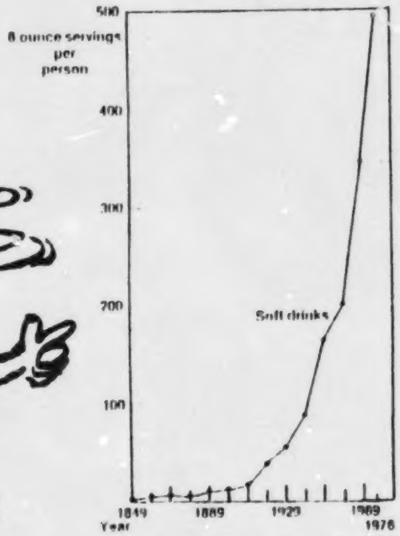
11. WHAT FACTORS CAN YOU THINK OF THAT COULD HAVE ATTRIBUTED TO SUCH CHANGES IN OUR DIET?

Graph 9: Caloric Sweetener Consumption



2.2 pounds = 1 kilogram

Graph 10: Soft Drink Consumption



1 cup = .24 liters (240 milliliters)

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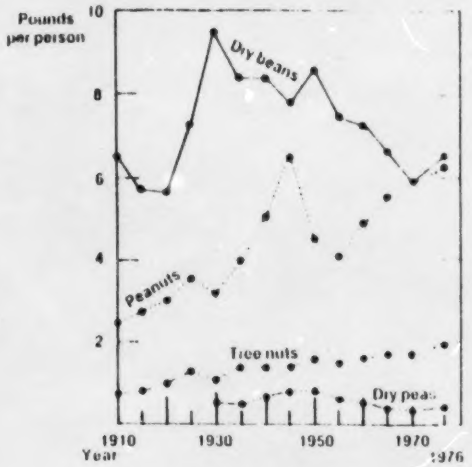
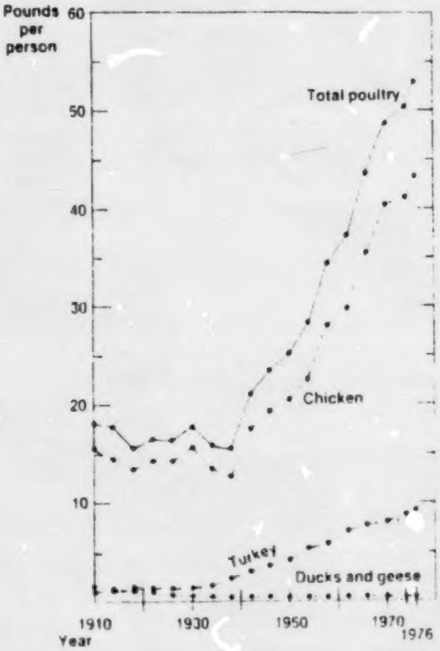
Graph 11: Bean, Pea and Nut Consumption



12. WHEN WERE THE PEAK YEARS FOR BEAN AND PEANUT CONSUMPTION? WHAT FACTORS COULD HAVE CONTRIBUTED TO THIS?

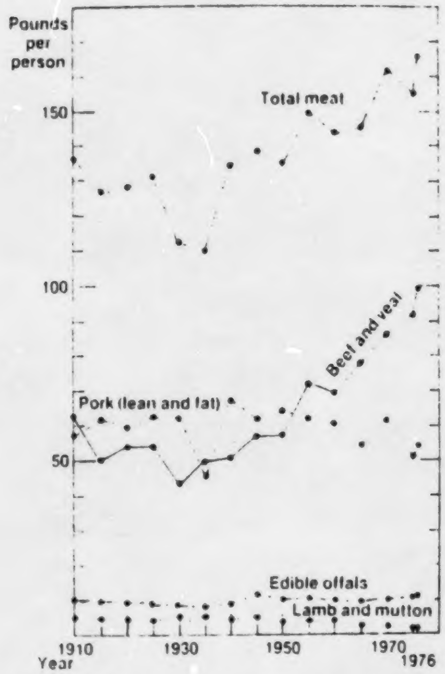
Graph 13: Poultry Consumption



15. HOW MANY MORE POUNDS OF POULTRY DID WE CONSUME IN 1976 THAN IN 1910?

16. HOW CAN YOU EXPLAIN THE RISE AND FALL OF THE EGG'S POPULARITY?

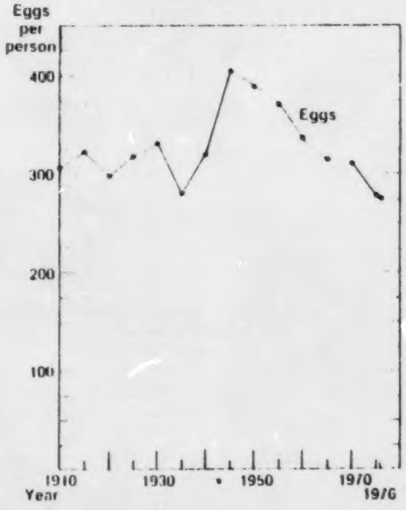
Graph 12: Meat Consumption



13. WHAT TRENDS DO YOU NOTICE IN OUR MEAT-EATING HABITS?

14. WHAT FACTORS CONTRIBUTE TO SUCH TRENDS?

Graph 14: Egg Consumption



2.2 pounds = 1 kilogram

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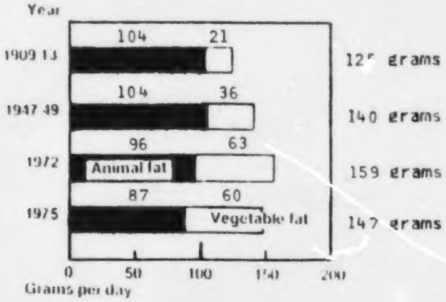
Perhaps the most dramatic change in our diet is our growing fat intake. Around 1910, each American consumed approximately 125 grams daily, but by 1975, this figure had jumped to 147 grams.[16]

The increase in fat consumption has come from foods of vegetable origin. However, animal sources continue to provide the largest proportion of our fat intake.[16]

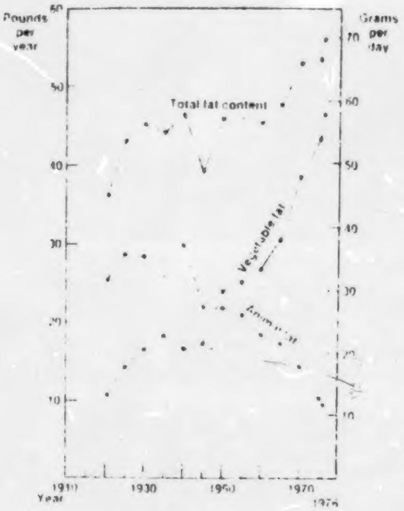
Graph 15: Fat Content of Total Fat Consumption



17. WHAT FACTORS COULD HAVE CAUSED THE INCREASE IN THE CONSUMPTION OF VEGETABLE FATS AND OILS?

18. HOW CAN YOU ACCOUNT FOR THE DECREASE IN THE AMOUNT OF ANIMAL FAT CONSUMED?

Graph 16: Fat Content of Separated Fats and Oils



1 pound = 454 grams

[Permission was granted to reproduce the previous graphs from The Changing American Diet, an 80 page book from the Center for Science in the Public Interest, 1755 S Street, NW., Washington, D.C. 20009.]

Now, let's see what all those yearly consumption figures mean in terms of nutrients eaten daily. Remember that the figures exaggerate the actual intake. However, it is evident that our eating patterns have changed.

APPROXIMATE DAILY FOOD CONSUMPTION[10]

	1910	1950	1976
Calories	3490	3260	3380
Protein	102 grams	95 grams	103 grams
Fat	125 grams	145 grams	147 grams
Carbohydrate	495 grams	402 grams	390 grams

19. FIGURE THE PERCENTAGE CHANGE FROM 1910 TO 1976 FOR EACH OF THE ABOVE.

Review Time

What are trends in our eating patterns?

1. Name four foods that Americans ate more of in 1976 than in 1910.

____

____

____

____

2. Name four foods that Americans ate less of in 1976 than in 1910.

____

____

____

____

3. Are there any foods that Americans are eating approximately the same amounts of today as they did in 1910? If so, what are they?

____

____

____

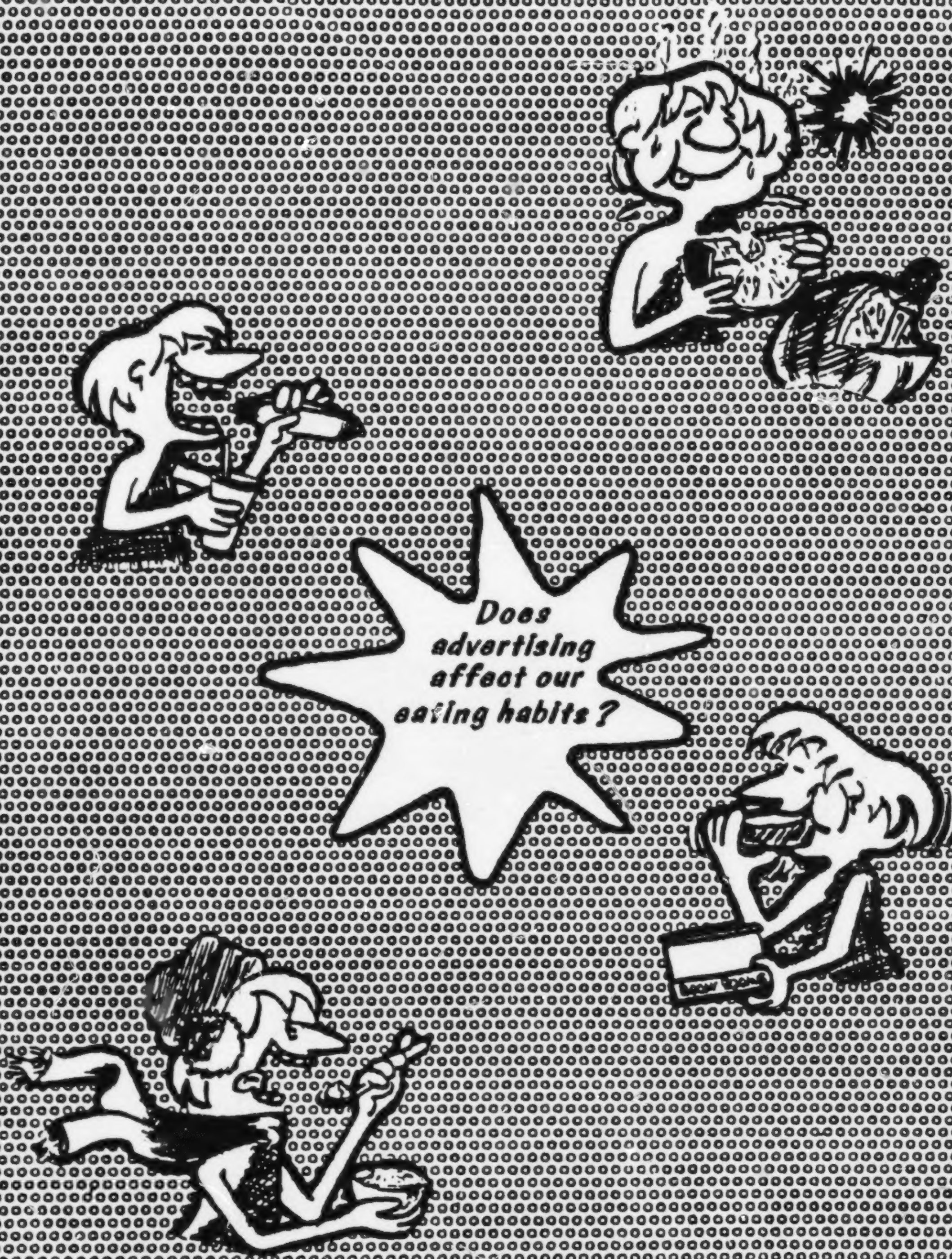
____

A. Compare your own diet to the trends evident in the food consumption graphs. Try to remember the types of foods you and your family ate five or ten years ago. Have your food preferences changed? Is your family's diet typical of the trends?

B. How has the rise in the number and type of restaurants attributed to the food consumption trends?

C. What do you feel is the most important factor influencing changes in the American diet?

D. Consumption figures show that in 1976, each American drank 493 eight-ounce servings of soft drinks.[10] About how many ounces a day is that? On the average, how many ounces of soft drinks do you consume each day? How does that compare to the national average?


Does advertising affect our eating habits?

DICTIONARY

passwords ...

Does advertising affect our eating habits?

ADVERTISEMENT	*Paid announcement or message that gives information about products or services in an attempt to persuade consumers to purchase them*
APPEAL	*Means used in an advertisement to interest or reach the customer*
TECHNIQUE	*Method used*

Ready to Move On?

Do You Know the Passwords?

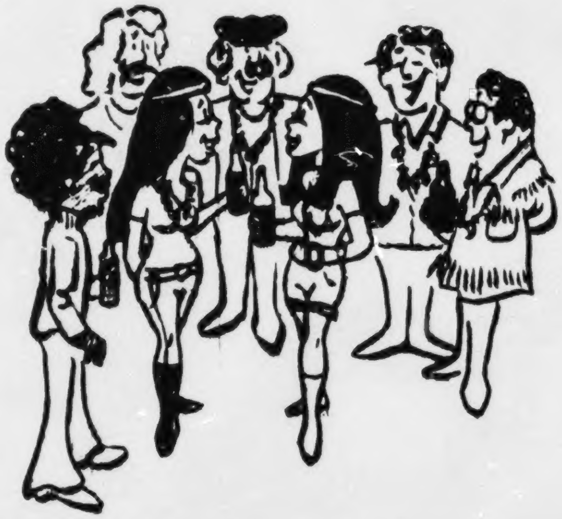
What Eating Habits Have YOU Learned From Advertising?

Many of our eating habits have been learned from advertisements, whether we wish to believe it or not. Daily we are bombarded with hundreds of commercial messages of all types--TV, radio, billboards, newspapers, magazines, and signs. Just think of all the advertisements you have personally seen or heard in the past week alone! Undoubtedly, many of those advertisements were for foods, beverages, or restaurants.

Now, advertising doesn't make you buy or eat the product. That's your decision. Advertising tells the consumer what is available. Ads give information, either explicit or implied, about the product. The consumer, however, has the freedom to decide whether or not the item meets his needs. The consumer decides if he wants to then try the product.

Advertisers use several techniques to "sell" their products. Here are three appeals used most often in food advertisements.[50]

✱ EMOTIONS: AN APPEAL TO YOUR BASIC NEEDS FOR LOVE, HAPPINESS, AND PEER APPROVAL; MAY CREATE AN "IMAGE"



CAN YOU THINK OF FOOD OR BEVERAGE ADVERTISEMENTS THAT APPEAL TO EMOTIONS? WHAT TYPE OF "IMAGE" IS CREATED?

HOW DO YOU FEEL ABOUT SUCH ADVERTISEMENTS?

DO THEY CONVINCE YOU TO TRY THE PRODUCT?

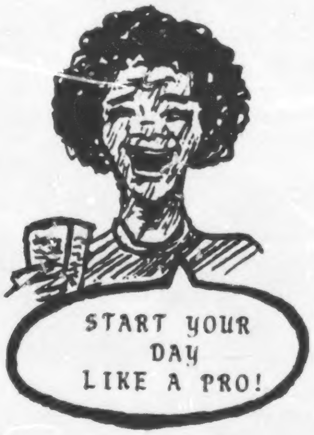
WHEN CONSUMING THE FOOD OR BEVERAGE ADVERTISED, DO YOU FEEL LIKE THE "IMAGE" SUGGESTED THAT YOU SHOULD FEEL?

✱ ENDORSEMENT: A FAMOUS PERSON ADVERTISES THE PRODUCT

WHAT FOOD OR BEVERAGE ADVERTISEMENTS HAVE YOU SEEN RECENTLY GIVEN BY A FAMOUS PERSON?

WHY DO YOU THINK EACH CELEBRITY WAS CHOSEN?

HOW SUCCESSFUL DO YOU THINK SUCH ENDORSEMENTS ARE?

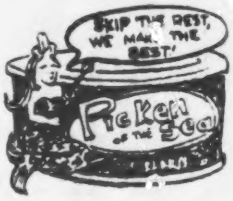

START YOUR DAY LIKE A PRO!

✱ LOGIC: INFORMATIONAL ADVERTISING, GIVING FACTS; APPEAL TO YOUR GOOD SENSE AND GOOD TASTE

NAME FOOD AND BEVERAGE ADVERTISEMENTS WHICH APPEAL TO YOUR INTELLIGENCE BY GIVING "FACTS" ABOUT THE PRODUCT.

DO YOU QUESTION THE FACTS? DO THEY GIVE YOU ALL THE INFORMATION YOU NEED?

"In blindfold tests, 3 out of every 4 tasters chose crusts made with digestible all-vegetable FLAKIN as being flakier than those made with the leading part-vegetable shortening!"

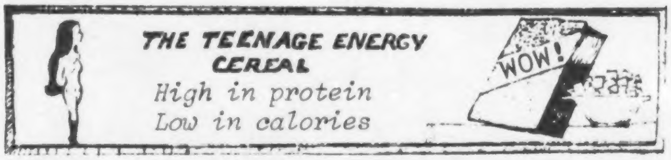

SKIP THE REST, WE MAKE THE BEST!
Flaken of the Sea

Review Time

Does advertising affect our eating habits?

DESCRIBE THE TYPES OF ADVERTISING APPEALS USED IN EACH OF THE FOLLOWING ADS. WHAT ARE POSSIBLE PROBLEMS ASSOCIATED WITH EACH?

1.



THE TEENAGE ENERGY CEREAL

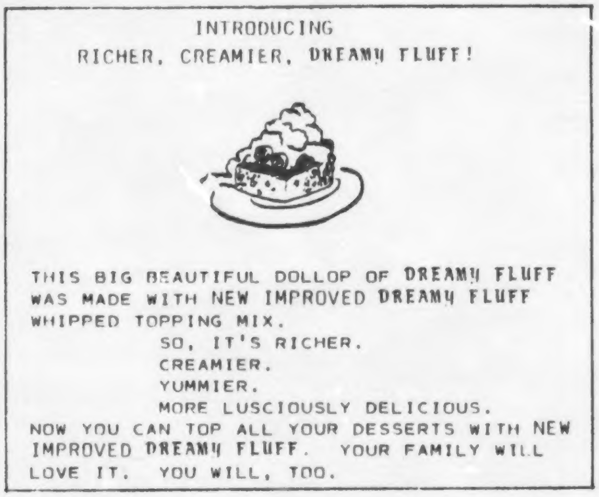
High in protein

Low in calories

____

____

2.



INTRODUCING
RICHER, CREAMIER, DREAMY FLUFF!

THIS BIG BEAUTIFUL DOLLOP OF DREAMY FLUFF WAS MADE WITH NEW IMPROVED DREAMY FLUFF WHIPPED TOPPING MIX.

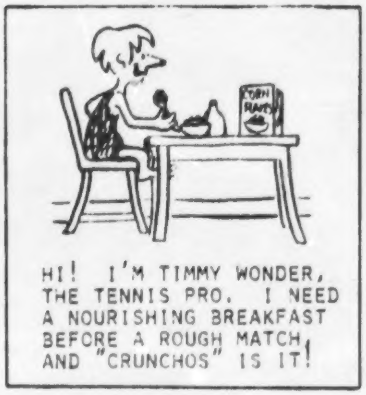
SO, IT'S RICHER.
CREAMIER.
YUMMIER.
MORE LUSCIOUSLY DELICIOUS.

NOW YOU CAN TOP ALL YOUR DESSERTS WITH NEW IMPROVED DREAMY FLUFF. YOUR FAMILY WILL LOVE IT. YOU WILL, TOO.

____

____

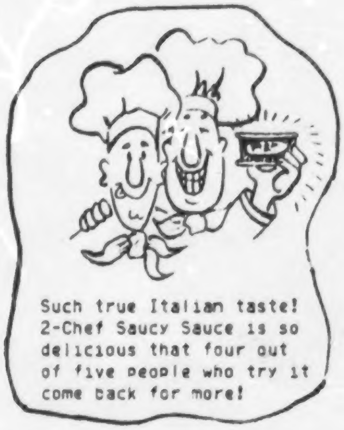
3.


CORN FLAKES
HI! I'M TIMMY WONDER, THE TENNIS PRO. I NEED A NOURISHING BREAKFAST BEFORE A ROUGH MATCH, AND "CRUNCHOS" IS IT!

____

____

4.


Such true Italian taste! 2-Chef Saucy Sauce is so delicious that four out of five people who try it come back for more!

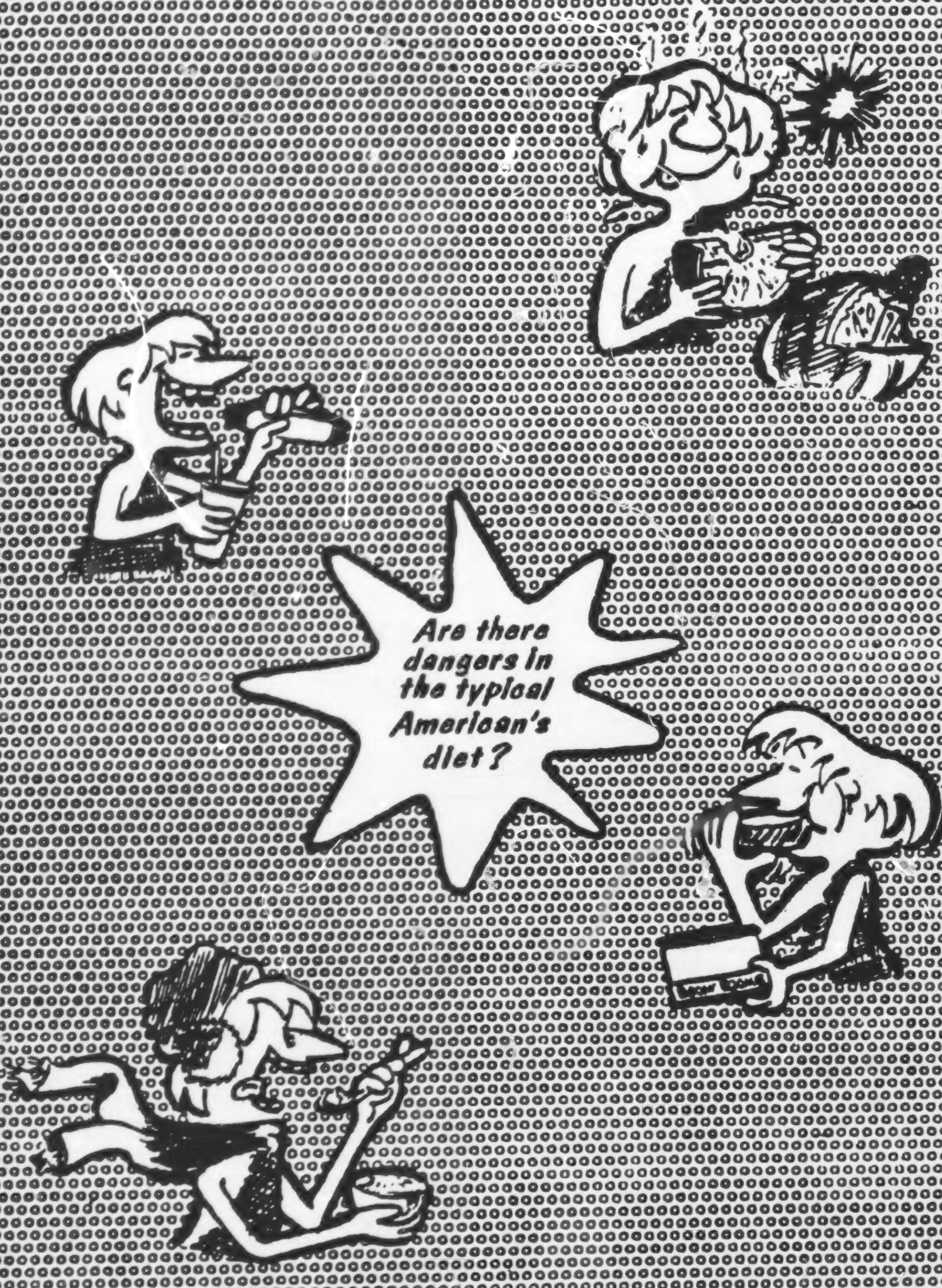
____

____

A. What eating habits do you have that can be attributed to advertising?

B. What type of advertisement is most appealing to you? Why?

C. Do you choose restaurants because of the advertising? If so, why?


Are there dangers in the typical American's diet?

DICTIONARY

passwords ...

Are there dangers in the typical American's diet?

CARCINOGEN	*A cancer-causing substance*
CARDIOVASCULAR	*Relating to or involving the heart and blood vessels*
CHOLESTEROL	*A fat-like substance made in the body and found in every cell; normal constituent of blood and tissues*
CHRONIC	*Constant, or lasting a long time*
CON	*An argument against something or someone*
DEGENERATIVE DISEASE	*Disease caused by a progressive deterioration of a body tissue or organ which then decreases its ability to function properly*
EPIDEMIOLOGY	*Branch of medical science concerned with the incidence and distribution of disease in a population*
FIBER	*The part of the plant that is not digested, but is necessary for the proper movement of the bowel; also called roughage*

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GLUTTONY	*The act or habit of eating too much*
HYPERTENSION	*High blood pressure (which places a greater strain on the heart)*
OBESE	*The state or condition of being very fat; weighing twenty percent or more than ideal weight*
OVERWEIGHT	*Weighing ten percent or more than ideal weight*
PRO	*An argument in favor of something or someone*
PROCESSED FOOD	*Food which has been changed from its natural state*
SATURATED FAT	*Fat which is solid at room temperature; comes mainly from animal sources, also coconut and palm oil*
TRANSIENT	*Passing away with time; temporary*
UNSATURATED FAT	*Fat which is liquid at room temperature; comes mainly from vegetable sources*

Ready to Move On ?

Do You Know the Passwords ?

THE DANGERS OF GLUTTONY AMERICAN STYLE

THERE IS A STRONG DEBATE AMONG NUTRITIONISTS AS TO THE EXACT ROLE THAT DIET PLAYS IN SEVERAL DISEASES. SOME STUDIES HAVE SUGGESTED THAT DIET MAY BE A PRIMARY RISK FACTOR IN A NUMBER OF DEGENERATIVE DISEASES. SPECIFICALLY:

HEART DISEASE

This is the major cause of death in the United States. Epidemiological studies of people in various countries have related heart disease to our rich, fatty diet.[52]

DENTAL DECAY

Only 2 out of every 100 people are not affected with this health problem. A good diet is a must for the proper development of tooth structure and for the resistance to the tiny organisms that promote decay.[64]

DIABETES

Some doctors believe that some forms of this disease may be brought about by being overweight.[64]

CANCER

Among all the uncertainties about cancer, there is wide agreement on one point. That is: cancer is caused not by any single thing, but by a combination of factors. There is a growing feeling that diet is one factor.[13]

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For more than fifty years, nutrition research has been geared to understanding the role of essential nutrients in health. It has helped to successfully eliminate most deficiency diseases in America.

Now some nutrition research efforts are trying to find links between our diet and degenerative diseases. These are mainly epidemological studies--comparisons of the kinds of diseases found among various people around the world. They are not studies using the scientific method, with all factors being controlled except the one being studied. Therefore, the results are circumstantial. They can only suggest that diet may be one cause. Many nutritionists feel that such findings should not not be used as a basis to advocate a change in one's eating habits.

◆

Dr. Dennis Burkitt, a British surgeon, has found that bowel cancer is far less common among rural Africans than among residents of industrialized nations. He believes that the major difference is in the diet. Rural Africans still eat high amounts of unrefined cereals. Americans and Europeans eat only about one-tenth the amount of whole-wheat flour and bran than they did in 1900.[7]

◆

Scotland and Denmark lead the world in the colon-rectal cancer death rate. Dr. John W. Berg, from the National Cancer Institute, reports that Scotland "...is the one country where the highest recorded rates for bowel cancer are in rural, not urban, areas. These rural areas are the beef-raising counties. Moreover, while the Scots eat less meat than any part of England, they eat nineteen percent more beef than the English and have a ten percent higher mortality rate from bowel cancer." Similarly, Argentina, Uruguay, and New Zealand enjoy very high beef consumption and suffer high rates of colon-rectal cancer.[7]

◆

"Association doesn't mean causation," argues Dr. Ernest L. Wynder, president of the American Health Foundation and a long-time cancer researcher. He believes that it is not beef that is linked with colon cancer, but the high amount of fat that Americans consume. Much of the fat comes from beef and other meats. Dr. Wynder discovered that the bacteria in the intestines of people on the high-fat American diet differs considerably from the bacteria of people on the low-fat, high vegetable Japanese type of diet. The high amount of cholesterol and bile acids passing through the American bowel may account for the difference. Dr. Wynder believes that these bile acids and other products of a high-fat diet may be the raw materials that bacteria use to make cancer-causing chemicals.[7]

Other studies have found:

CIGARETTE SMOKING IS THE MAJOR CAUSE OF LUNG CANCER, THE LEADING CANCER KILLER IN THE UNITED STATES. CIGARETTE SMOKING IS ALSO ASSOCIATED WITH CANCERS OF THE MOUTH, LARYNX, ESOPHAGUS, KIDNEY, AND BLADDER. CIGARETTE SMOKING IS THE LEADING SINGLE KNOWN CAUSE OF CANCER![13]

COMPOUNDS FORMED IN THE SMOKING PROCESS OF SMOKED FISH MAY CONTRIBUTE TO CAUSING STOMACH CANCER. JAPANESE PEOPLE, WHO EAT A LOT OF SMOKED FISH, HAVE A HIGH INCIDENCE OF CANCER OF THE STOMACH. IN THE UNITED STATES, STOMACH CANCER DEATHS HAVE DECREASED IN THE PAST FIFTY YEARS. THIS DECLINE IS ATTRIBUTED TO OUR DIET.[53]

ALCOHOL HAS BEEN SHOWN TO INCREASE THE CHANCES OF DEVELOPING CANCER, PARTICULARLY CANCERS OF THE ESOPHAGUS, MOUTH, THROAT, LARYNX AND LIVER. THE RISK OF DEVELOPING ESOPHAGEAL CANCER IS MANY TIMES GREATER FOR HEAVY DRINKERS THAN FOR NON-DRINKERS. THE GREATEST CANCER RISK IS FACED BY PERSONS WHO BOTH SMOKE AND DRINK HEAVILY.[12]

AFLATOXIN IS ONE OF THE MOST DANGEROUS CARCINOGENS KNOWN TO MAN. IT IS PRODUCED BY A COMMON MOLD WHICH GROWS ON FOODS STORED IN HUMID CONDITIONS—SUCH AS PEANUTS. AFRICANS HAVE A FANTASTIC RATE OF LIVER CANCER, PROBABLY RESULTING FROM A DIET HIGH IN PEANUTS CONTAMINATED WITH AFLATOXIN.[12]

JAPANESE WOMEN WHO MIGRATED TO THE UNITED STATES AND ADOPTED AN AMERICAN LIFE STYLE SHOWED A MARKED INCREASE IN BREAST CANCER OCCURING WITHIN A FEW GENERATIONS.[66]

IN THE UNITED STATES, SEVENTH DAY ADVENTISTS HAVE A RELATIVELY LOW INCIDENCE OF CANCER OF THE COLON. THEY AVOID MEAT AND ANIMAL FATS.[66]

The results of most of these studies are not accepted universally as FACTS. However, many people are concerned about the possible relationship of diet to disease.

Dr. George Christakis, while head of the nutrition program at Mount Sinai School of Medicine in New York, stated, "About two-thirds of the nation's public health and chronic disease problems are related to how our fellow citizens eat."[61]

To put it somewhat more bluntly -- are we digging our graves with our forks?

AMERICANS ABUSE FOOD IN MANY WAYS, TOO MANY REALLY TO DESCRIBE THEM ALL. THIS SECTION WILL CENTER ON FIVE POSSIBLY SERIOUS MISTAKES:

TOO MUCH FOOD

TOO MUCH SALT

TOO MUCH SUGAR

TOO LITTLE FIBER

TOO MUCH FAT

THE COST OF DIET-LINKED DISEASES IS CONSIDERABLE. IN 1977, GEORGE BRIGGS, A PROFESSOR IN THE DEPARTMENT OF NUTRITIONAL SCIENCES OF THE UNIVERSITY OF CALIFORNIA, TOLD A CONGRESSIONAL HEARING THAT AS MUCH AS $40 BILLION OF THE NATION'S MEDICAL BILL WAS THE RESULT OF POOR NUTRITION.[70]

Too much food

A few times each day your stomach will probably growl, gurgle, or grumble. To make it stop, you stuff it with food. Some people love the idea. Others can't be bothered. Then there are others who live (and die) by the practice.

Americans today consume fewer calories from eating than our ancestors did in 1910.[10] However, we are still *EATING TOO MUCH!* One out of every five children is overweight. About one-third to one-half of all adults living in our cities are obese.[24] In addition, the United States is the only member country of the World Health Organization which has seen no increase in the lifespan of its men in twenty years. This fact is considered obesity-related.[24]

FACT: IN ONE TYPICAL YEAR (1973), THE AVERAGE AMERICAN PACKED AWAY 1448 POUNDS OF FOOD (NEARLY THREE-QUARTERS OF A TON).

RESULT: 70 MILLION AMERICANS WEIGH TOO MUCH![61]

We all like to eat until our "hunger pangs" are satisfied, but waistlines expand when we are not "putting out" what we are "taking in."

Every work motion we eliminate from our daily activities is one more reason to gain weight. A secretary could gain two to three pounds a year by simply replacing a manual typewriter with an electric one.[40] Just eating one slice of bread a day more than your body needs could add over seven pounds of extra weight a year! You can see what happens when people decrease their activity even slightly without cutting down on their eating.

HOW DOES BEING OVERWEIGHT ENDANGER HEALTH?

The death rate is half again as great among the obese.[53] They are far more likely to develop heart disease, high blood pressure, diabetes, arthritis, kidney disease and other problems. Overweight women have more trouble during pregnancy and bear fewer healthy babies.[24] Depending on the amount of excess fat carried, life can be shortened by as many as ten years.[18]

FAD DIETS CAN BE DANGEROUS TO YOUR HEALTH!

New fad diets come and go. Overweight individuals are often attracted to them as a painless way to lose weight in a short time. Sometimes, though, they are not based on eating a nutritionally balanced diet. One example is the Zen Macrobiotic diet. This diet requires the dieter to progress through stages to achieve a sense of "well-being." The first stage is composed of a variety of foods. Then the dieter gradually eliminates types of foods until he is eating only cereals, such as rice. This has led to severe malnutrition, even death in a few documented cases.[82]

For most overweight people, a nutritionally balanced diet that allows a gradual weight loss is the most successful. The diet should also emphasize long-term changes of former eating patterns.[1]

The recipe for successful weight reduction is simple:

Take MOTIVATION -- *strong reasons for losing weight*
Add KNOWLEDGE -- *about good nutrition*
Mix with SELF-DISCIPLINE -- *will power*
Add a dash of EXTRA PHYSICAL ACTIVITY![17]

THE LARGER THE WAISTLINE -- THE SHORTER THE LIFELINE![41]

Too much salt

Salt contains the chemical sodium. Americans probably consume a greater excess of sodium than of any other essential nutrient. The human body actually needs very little sodium. Most of us could probably get along quite nicely on only 500 milligrams of sodium a day. Up to 1000 milligrams can be considered a safe level. That is the amount of sodium contained in one-half teaspoon of salt. However, most experts estimate that we take in perhaps five to twenty times as much sodium as we need![59]

On one hand, much of our sodium intake comes from vigorously shaking the salt shaker. On the other hand, much of it is from eating processed foods.[68] Natural foods are low in sodium. Salt may be added in processing either to act as a preservative or to add to the taste of the food. A cured ham is about twenty times more salty than fresh pork. Potato chips have about 340 times as much sodium as is found naturally in an equal amount of raw potatoes. Commercially canned or frozen vegetables may contain many times the sodium content of the natural foods.[31] Sodium is also contained in common cooking ingredients--such as baking soda, baking powder, soy sauce, monosodium glutamate, garlic salt and onion salt.[59]

Excessive salt consumption over a long period of time may cause hypertension (high blood pressure). This, in turn, can lead to a stroke or heart attack.[43] One out of every five Americans over age forty has high blood pressure.[59]

Too much sugar

Defenders of sugar praise its name. Opponents of heavy sugar use blame it for contributing to several major ailments. These include obesity, tooth decay, and diabetes.[76]

The plain truth is that use of sucrose (table sugar refined from sugar cane or beets) and other caloric sweeteners in America is now at an all time high. Consider these statistics:

- The average American eats twice as much sugar and other sweeteners today (about 130 pounds or 60 kilograms) as he did 80 years ago.[10] That's more than one-third of a pound of the sweet stuff daily.[76]
- The way we obtain our sweeteners has also changed over the years. 70 years ago, only 25 percent of the sucrose we consumed was in our processed foods and beverages. Today, that figure is 75 percent. Sugar is added to many types of foods that may surprise you. Examples include hot dogs, ketchup, crackers, bread, salad dressings, and even bouillon cubes. Soft drinks alone accounted for 25 percent of the sucrose consumption in 1976.[10]
- We are consuming about the same amount of sucrose as we did 50 years ago (about 90 pounds or 40 kilograms). However, our corn syrup consumption has skyrocketed. In 1976, we ate 32.7 pounds (about 15 kilograms) of corn syrup per person. This is more than three times the amount consumed in 1960![10]
- In 1976, sweeteners provided a larger portion of our calories than ever before. In 1909, only 11.5 percent of calories consumed were from sweeteners. This percentage was raised to 17.8 by 1976.[10]
- Many common foods contain a high amount of sugar and other sweeteners. *READ THE FOOD LABELS.* If sugar is the first or second ingredient listed, the sugar content is high. Each type of sugar can be listed separately. Also look for corn syrup, fructose, and glucose.[49]

WOULD YOU FEED YOUR CHILD

CANDY FOR BREAKFAST?

Why Is Sugar So Bad??

Sugar helps cause cavities, especially in children.[76]

When lots of sugar is eaten, there is little room in the diet for better foods.[83]

DANGER DON'T EAT PRE-SWEETENED CEREALS AS SNACKS!! That's even rougher on your teeth than eating them with milk. At least with milk some of the sugar is washed away.[83]

Have you seen any Saturday morning T.V. lately? This is "prime time" for cereal advertisements. In fact, most of the kids' shows at this time could correctly be called the "cereal" operas.

To make matters worse, most supermarkets follow up this advertising barrage by temptingly placing these "cereals" at kids' eye level on their shelves.

The main problem with these breakfast cereals (at least the ones the advertisers are pushing at children) is their incredibly high sugar content. Sometimes, it is higher than some kinds of candy!

Until recently, cereal manufacturers tried hard to keep us from knowing how much sugar is in each brand they produce. Even food experts and the FDA have had to estimate the sugar content of pre-sweetened cereals. Their estimates were shocking, to say the least! Now, major cereal companies are showing the grams of sucrose and other sugars contained in an one-ounce serving of cereal on the label under carbohydrate information.[73] This is great, but there's one problem. The sugar content is given in grams for a serving size of one ounce. The consumer has to remember there are 28 grams in one ounce if he wants to calculate the percentage of sugar actually present in that cereal.

- ✓ *30 - 60% sugar in all sugar-coated cereals with most between 40 - 50%.*
- ✓ *11 - 30% sugar in nearly all Granola style "natural" cereals.*
- ✓ *1 - 10% sugar in most non-presweetened cereals.*[83]

The following percentages are the results of an investigation conducted by Dr. Ira Shannon. He is the Director of the Oral Disease Research Laboratory at Houston's Veterans Administration Hospital. Several of these cereals are no longer on the market, and others have taken their place. The list is a pretty good guide, however, on which type of cereals contain the highest percentage of sugar. The figures after each cereal show the estimated portion of each that is plain sugar.[83]

HOW DOES YOUR BREAKFAST CEREAL RATE?

Super Orange Crisp	68.0
Sugar Smacks	61.3
King Vitamin	58.5
Fruit Pebbles	55.1
Apple Jacks	55.0
Cocoa Pebbles	53.5
Lucky Charms	50.4
Cinnamon Crunch	50.3
Pink Panther	49.2
Honeycomb	48.8
Froot Loops	47.4
Trix	46.6
Cocoa Krispies	45.9
Baron Von Redberry	45.8
Vanilly Crunch	45.8
Booberry	45.7
Quisp	44.9
Orange Quangaroos	44.7
Count Chocula	44.2
Frosted Flakes	44.0
Frankenberry	44.0
Kaboom	43.8
Crunch Berries	43.4
Capn Crunch	43.3
Cocoa Puffs	43.0
Super Sugar Crisp	40.7
Sir Grapefellow	40.7
Alpha-Bits	40.3
Sugar Pops	37.8
Frosted Mini Wheats	33.6
Sugar Sparkled Corn Flakes	32.2
Bran Buds	30.2
Sugar Frosted Flakes	29.0
Super Sugar Chex	24.5
Heartland	23.1
Fortified Oat Flakes	22.2
Granola (with almonds)	21.4
All Bran	20.0
100% Bran	18.4
Granola	16.6
40% Bran Flakes (Kellogg)	16.2
Brown Sugar-Cinnamon Frosted Mini-Wheats	16.0
Team	15.9
40% Bran Flakes (Post)	15.8
Sugar Frosted Corn Flakes	15.6
Granola with Dates and/or Raisins	14.5
Life	14.5
Buck Wheat	13.6
Heartland (with raisins)	13.5
Raisin Bran	10.6
Rice Krispies	10.0
Concentrate	9.9
Crisp Rice	8.8
Rice Chex	8.5
Total	8.1
Corn Flakes (Kellogg)	7.8
Grape Nuts	6.6
Peanut Butter	5.1
Corn Flakes	5.1
Wheaties	4.7
Special K	4.4
Corn Total	4.4
Product 19	4.1
Post Toasties	4.1
Alpen	3.8
Puffed Wheat	3.5
Grape Nut Flakes	3.3
Wheat Chex	2.6
Uncle Sam Cereal	2.4
Puffed Rice	2.4
Cheerios	2.2
Shredded Wheat (spoon)	1.3

THERE ARE TWO SIDES TO EVERYTHING

PRO	CON
The nutritionist Dr. F. J. Stare has stated: "Sugar is a digestible carbohydrate and all digestible carbohydrates are nutrients."[49]	Sugar contains in itself no added nutrients. Therefore, critics term sugar as "empty calories."[61]
Sugar consumption has remained basically unchanged in the last 50 years.[76]	True, for sucrose consumption, but what about the increase in the use of other caloric sweeteners?[76]
The sweet taste of sugar is almost universally pleasing, and sugar makes nutritious food acceptable to many people.[74]	Americans are growing fatter. According to a study conducted by the National Center for Health Statistics, the average American has gained about four pounds just since 1960![76]
There is not a simple relationship between the amount of sugar consumed and the number of cavities you'll get. Other important factors include frequent eating of sugar foods, choosing sticky foods, and between meal snacking.[74]	The link between dental cavities and sugar is no longer a matter of controversy. There is now overwhelming evidence from animal experiments and human studies to implicate sugar in tooth decay.[76]
Three clinical studies found no relationship between the amount of cereals consumed, whether ready-sweetened or regular, and the incidence of tooth decay in children.[9]	Essentially, it's not the presweetened cereals that increase tooth decay, but the amount of sugars in cereals, sweets, and numerous other processed foods.[76]
A recent study compared the amount of sugar in servings of ready-to-eat cereals when children added their own sugar to the amount present in the presweetened varieties. They found 13-16 grams of sugar present in the non-presweetened cereals as opposed to 11 grams in the presweetened.[73]	Metric listings, still unfamiliar to many people, can be confusing. The 11 grams of sugar listed in a one-ounce serving of frosted flakes, for example, actually means adding one tablespoon of sugar to your bowl of cereal.[11]

Open and Closed Cases

When controversy is involved, we know that there are at least two sides to that controversy. Should welfare payments be higher? Should America offer increased foreign aid to other nations? Should the Federal government have a consumer protection agency? Should the State sales tax be lowered? There are many controversial questions, and many sides to the arguments.

When we study those questions, we sometimes have a lot of evidence and our values are clear. Thus, we can make a judgment and feel certain that our position is right and responsible. That is a CLOSED CASE. On the other hand, there are many times when the evidence is not clear or it is conflicting. We cannot draw a conclusion in which we can be certain. That is an OPEN CASE. We await more evidence, further research -- meanwhile we might change our way of living, while waiting!

TAKE THE CASE OF SUGAR:

1. What is the major controversy about SUGAR?

2. Given the evidence provided, is the controversy about SUGAR an OPEN or CLOSED CASE????????

3. WHY?

4. If you feel the case is OPEN, what are intelligent, responsible things for YOU to do while awaiting more evidence?

    ____

    ____

    ____

Write a PRESS RELEASE or a radio SPOT ANNOUNCEMENT about your conclusions on SUGAR.

221 ~~50~~ 170

Too little fiber

A vital ingredient may be missing from your diet--enough fiber, or roughage. Just what is roughage anyway? It is the part of the plant food that you don't digest, the part that gives the plant its shape or structure. Although it's called roughage, or fiber, it's actually smooth in the intestines.

All the different parts of plants are good sources of fiber--flowers, leaves, seeds, stems, fruits, roots, bulbs, etc.

Fiber has been pretty much ignored by food scientists in past years because it provides little nourishment. Investigating proteins, sugars, fats, and vitamins was considered much more important. However, recent studies have led several scientists to suggest that a lack of fiber may be a contributing factor in a number of diseases. The theory is that fiber is useful in helping move food wastes through our intestines quickly. It helps to prevent the build-up of harmful bacteria.[34]

"That's not one of those new high fiber cereals! You just ate a bowl of steel wool!"

There has been a dramatic change in the content of our diets, mainly due to modern food processing. Recent estimates are that we eat only one-fifth as much fiber as our ancestors did 100 years ago.[42] Today, the average American consumes only four to six grams daily. Let's see what this dramatic decline could have meant to our health.

→

The Startling News about High-Roughage Foods and what you should do about it

Today, considerable interest has developed in a theory that consumption of foods high in fiber will reduce the incidence of the following diseases:

CANCER OF THE COLON, INTESTINAL DISEASE,

APPENDICITIS, CARDIOVASCULAR DISEASE,

DIABETES, GALLSTONES, VARICOSE VEINS,

HEMORRHOIDS, AND OBESITY.[34]

This theory is based on observations of British physicians that such diseases are virtually unknown among Africans living in rural villages. However, they do occur in Africans who move to urban areas and eat a low fiber, high fat, processed diet similar to the modern American diet.[34]

An increase in these "diseases of civilization" follows in just about every part of the world going modern. Then food is so highly refined in factories that nearly all the natural fiber is removed.

The idea that health might be improved by simply increasing the roughage in our diets is appealing. At present, however, the evidence relating a low-fiber intake to diseases remains circumstantial. Comparing African population groups with those in the United States may not be valid because the incidence of degenerative diseases such as cancer and heart disease increases with age. The average life expectancy in three-fourths of Africa is less than 45 years, compared to 71 years in the United States and 73 years in Canada.[5]

Although the evidence linking lack of fiber to cancer and other major health problems is far from conclusive, many nutritionists agree that Americans should make sensible changes in eating habits. Doubling the daily fiber intake to about the level of 75 years ago would seem a wise course. We can do that by eating more whole-grain cereals and breads, vegetables, fruits, and nuts.

GOOD FIBER SOURCES

BREAKFAST CEREALS AND BREADS: Made with whole-grains; bran cereals are particularly high in fiber content (check package label)

RICE: Brown rice

VEGETABLES: Broccoli, brussels sprouts, cabbage, beets, cauliflower, carrots, sweet potatoes, tomatoes, beans, turnips, corn, white potatoes (especially the skins)

FRUITS: Apples, pears, peaches, bananas, prunes, and all kinds of berries--eating the skin increases the fiber content

SNACKS: All kinds of nuts, seeds, and popcorn

Too much fat

Cholesterol is a fat-like substance found in virtually all body tissues. It has to be there for normal functions. Therefore, it occurs in nearly all animal-source foods. It is also manufactured by the liver. But, when excessive cholesterol is found in the blood, it may be associated with a high risk of developing coronary heart disease.[17]

Over a million Americans die each year of cardiovascular disease. Of these, 600,000 are due to coronary heart disease.[53] It is the major health problem in the United States today. It accounts for nearly forty percent of all deaths.[44]

In recent years, increasing numbers of young and middle-aged people have suffered heart attacks. Prevention is the best solution for everyone, but particularly true for those with a family history of heart disease. Studies have identified several factors contributing to heart disease:[44]

- *OBESITY*
- *LACK OF EXERCISE*
- *FAMILY HISTORY*
- *CHOLESTEROL*
- *DIETARY FAT*
- *CIGARETTE SMOKING AND AIR POLLUTION*
- *HIGH BLOOD PRESSURE*
- *DIABETES*
- *ANXIETY*

In regard to cholesterol and fats, studies have found:

A HIGH LEVEL OF CHOLESTEROL IN THE BLOOD MAY INDUCE ARTERIOSCLEROSIS (HARDENING OF THE ARTERIES). THIS, IN TURN, INCREASES THE RISK OF HEART ATTACK.[38]

CHOLESTEROL LEVEL CAN BE RAISED IN SOME INDIVIDUALS BY EATING A DIET HIGH IN CHOLESTEROL AND SATURATED FATS.[53]

CHOLESTEROL LEVEL CAN BE LOWERED IN SOME INDIVIDUALS BY UNSATURATED FATS.[53]

!CAUTION

HYDROGENATION (the process of adding hydrogen to a natural fat or oil to make it thicker or solid) can make unsaturated fat into saturated fat.

SATURATED FATS:
  Come mainly from animal sources
  (Exceptions--coconut and palm oils)
  Solid at room temperature

UNSATURATED FATS:
  Come mainly from vegetable sources
  Liquid at room temperature

BEST COPY AVAILABLE

A number of population studies have indicated high levels of cholesterol in the blood as one of several factors that may increase the risk of heart attack.[28] However, studies have not shown conclusively that, for the general public, reducing the cholesterol level will in turn reduce the incidence of heart attacks.[84] There is quite a controversy among nutritionists on this issue.

The American Heart Association has urged for several years that Americans reduce their intake of cholesterol-rich foods and fats, especially saturated fats.[30] Critics counter that most people have a safe level of cholesterol on any diet and that diet restrictions should be considered only for those individuals with identified high cholesterol levels.[65]

The rate of coronary heart disease in this country has been decreasing since 1960. The death rate from this disease has also been steadily falling. Exact reasons for this are not known. It may be the result of improved medical care. However, many physicians believe it is because more and more people are heeding advice to stop smoking, reduce the amount of fat in their diet, control their blood pressure if it's high, and exercise more.[69]

The average American probably consumes 600 to 800 milligrams of cholesterol each day. To lower a patient's cholesterol level, doctors suggest an intake of only 300 milligrams daily--about half of what is typical.[59] A glance at the chart below will show you just how quickly you could eat 300 milligrams of cholesterol.

CHOLESTEROL CONTENT OF COMMON FOODS

Food	Serving Size	Cholesterol (milligrams)
Skim milk	1 cup -- 240 milliliters	5
Cottage cheese, creamed	1/2 cup -- 120 milliliters	24
Ice cream (10% fat)	1/2 cup -- 120 milliliters	27
Cheddar cheese	1 oz. -- 28 grams	28
Whole milk	1 cup -- 240 milliliters	34
Butter	1 Tbsp. -- 15 milliliters	35
Oysters, salmon	3 oz., cooked -- 84 grams	40
Clams, halibut, tuna	3 oz., cooked -- 84 grams	55
Chicken, light meat	3 oz., cooked -- 84 grams	67
Beef, pork, lobster, chicken, dark meat	3 oz., cooked -- 84 grams	75
Lamb, veal, crab	3 oz., cooked -- 84 grams	85
Shrimp	3 oz., cooked -- 84 grams	130
Egg	1 large yolk	250
Liver: beef, pork, calf, or lamb	3 oz., cooked -- 84 grams	370

FAT: MAY BE A FACTOR IN CANCER

Epidemiological studies of peoples all over the world have shown a strong relationship for cancer of the breast and colon and fat intake.[57] Again, though, there is disagreement among the nutritionists. Population studies simply give incidences of diseases. There is no proof that a change in eating habits will decrease your chances of contracting cancer.[35]

REMEMBER

STATISTICS CAN AND DO LIE...

EATERS DIGEST

Both sides of an issue usually quote facts and figures to support their respective sides. Very often they get their opposing figures from the same piece of information! It's similar to the situtation where two people look at a glass of water, and one describes it as half-full and the other as half-empty.

Statistics are often twisted to support whatever side one desires. So they should be examined as much for what they don't say as for what they do. Those who defend the amount of sugar in our foods claim that many of the alarming statistics tying sugar usage to several dangerous diseases have been been twisted in just this way.

To humorously point out the ridiculous extremes that "statistics-twisting" can lead to, Dr. Fergus Clydesdale, a University of Massachusetts food scientist, tells it something like this: "This study I did on pickles. Pickles will kill you. Every pickle you eat brings you nearer to death."[49] He reports that:

- *Nearly all sick people have eaten pickles. The effects are cumulative.*
- *99 percent of all people who die from cancer have eaten pickles.*
- *96 percent of all Communist sympathizers have eaten pickles, so they breed communism.*
- *99 percent of all people involved in auto accidents have eaten pickles within the previous 14 days.*
- *Additional evidence points to the long-term effects of pickles. Of the people born in 1859 who later ate pickles, every one has died.*[49]

Naturally, no such pickle study was ever done, and these statistics are just meant to be funny. However, they do illustrate how facts can be twisted to support the wrong conclusions.

Open and Closed Cases

You have read about the typical American high fat/low fiber diet on the previous pages. You have noticed the PRO and the CON sides of the arguments surrounding such a diet. Some people feel that we have enough evidence from researchers. They see a CLOSED CASE -- they are willing to make a judgment. Others think that the case is OPEN -- we don't have adequate evidence to make a judgment.

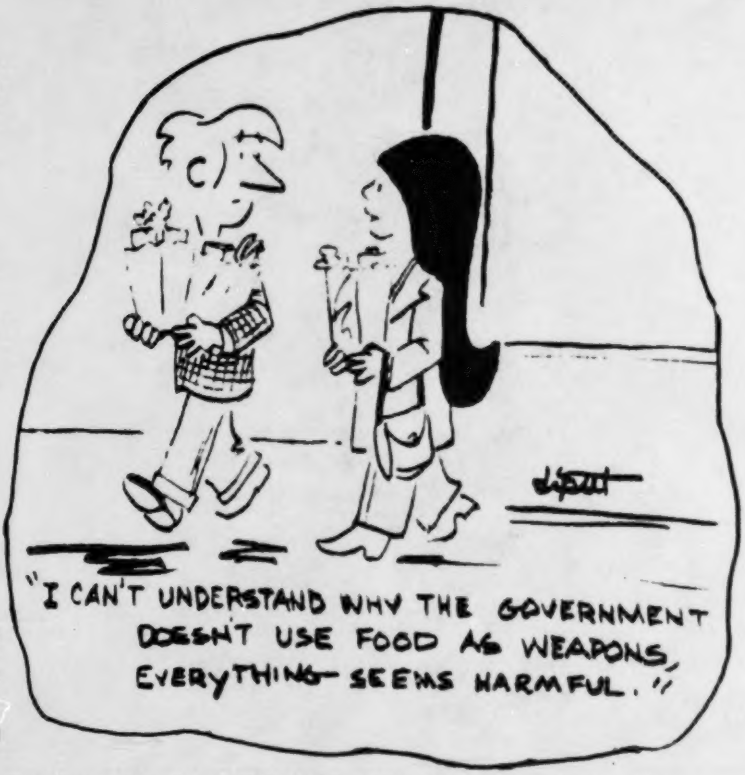
From the material in this PAL, do you think that the case about our high fat/low fiber diet is . . . . . OPEN . . . . . or CLOSED?

WHY?

Some persons will disagree with you. How can they do that? Didn't you all read the SAME EVIDENCE in this PAL?

Is it reasonable that good, thinking persons -- reading the same evidence -- will disagree on the conclusions to be drawn from that evidence?

DIETARY GOALS


"I CAN'T UNDERSTAND WHY THE GOVERNMENT DOESN'T USE FOOD AS WEAPONS, EVERYTHING SEEMS HARMFUL."

Too much food! Too much salt! Too much sugar! Too little fiber! Too much fat! Indeed, it does seem as if all our favorite foods are harmful.

For several years, the Senate Select Committee on Nutrition and Human Needs has been studying the possible relationships of food and diseases. They reviewed a wide variety of scientific data and testimony. The information received came from dietitians, nutritionists, research scientists, and the highest health officials of this country. In addition, they listened to recommendations of various professional panels in the United States and other countries.[70]

One of the first witnesses told the committee:

> *"While scientists do not yet agree on the specific causal relationships, evidence is mounting and there appears to be general agreement that the kinds and amounts of food and beverages we consume and the style of living common in our generally affluent, sedentary society may be the major factors associated with the cause of cancer, cardiovascular disease, and other chronic illnesses."*[70]
>
> *Dr. Ted Cooper, then Assistant Secretary for Health, HEW*

Dr. Cooper agreed that malnutrition in the United States is associated with six of the ten leading causes of death. These include heart disease, some cancers, stroke and hypertension, arteriosclerosis, diabetes, and cirrhosis of the liver. Other witnesses presented research data. They often used epidemological observations to support their statements.[70]

In January, 1977, the Select Committee released their report in a publication titled *Dietary Goals for the United States*. Confusion, controversy, and scientific disagreement immediately surrounded this publication. Two industries--meat and egg producers--requested additional hearings to express their views. Another year of hearings followed with more evidence, both PRO and CON being presented. After much discussion and debate, the committee revised their original Dietary Goals. They released the second version in January, 1978.[70]

U.S. DIETARY GOALS
AS REVISED JANUARY, 1978

1. To avoid overweight, consume only as much energy (calories) as is expended; if overweight, decrease energy intake and increase energy expenditure.

2. Increase the consumption of complex carbohydrates and "naturally occurring" sugars from about 28 percent of energy intake to about 48 percent of energy intake.

3. Reduce the consumption of refined and processed sugars by about 45 percent to account for about 10 percent of total energy intake.

4. Reduce overall fat consumption from approximately 40 percent to about 30 percent of energy intake.

5. Reduce saturated fat consumption to account for about 10 percent of total energy intake; and balance that with poly-unsaturated and mono-unsaturated fats, which should account for about 10 percent of energy intake each.

6. Reduce cholesterol consumption to about 300 mg. a day.

7. Limit the intake of sodium by reducing the intake of salt to about 5 grams a day.

THE GOALS SUGGEST THE FOLLOWING CHANGES IN FOOD SELECTION AND PREPARATION:

1. Increase consumption of fruits and vegetables and whole grains.

2. Decrease consumption of refined and other processed sugars and foods high in such sugars.

3. Decrease consumption of foods high in total fat, and partially replace saturated fats, whether obtained from animal or vegetable sources, with poly-unsaturated fats.

4. Decrease consumption of animal fat, and choose meats, poultry and fish which will reduce saturated fat intake.

5. Except for young children, substitute low-fat and non-fat milk for whole milk, and low-fat dairy products for high fat dairy products.

6. Decrease consumption of butterfat, eggs and other high cholesterol sources. Some consideration should be given to easing the cholesterol goal for pre-menopausal women, young children and the elderly in order to obtain the nutritional benefits of eggs in the diet.

7. Decrease consumption of salt and foods high in salt content.[70]

DIETARY GOALS

UNDOUBTEDLY, CONTROVERSY WILL SURROUND THE DIETARY GOALS FOR SOME TIME. BELOW ARE JUST A FEW OF THE OPINIONS EITHER SUPPORTING OR OPPOSING THE GOALS.

con

Life expectancy in the U.S. is the longest it has ever been. If food is a major factor in keeping us alive and healthy, then we must have been doing something right.[23] If the American diet has deteriorated, there should not be the increase in life expectancy.[48]

pro

Dr. D. M. Hegsted, Professor of Nutrition in the Harvard School of Public Health, stated in a press conference: "The question to be asked is not why should we change our diet, but why not? What are the risks associated with eating less meat, less fat, less saturated fat, less cholesterol, less sugar, less salt, and more fruits, vegetables, unsaturated fat and cereal products--especially whole grains. There are none that can be identified and important benefits can be expected."[70]

con

Dr. Alfred Harper disagrees. He is a professor of biochemistry and nutrition science at the University of Wisconsin. Dr. Harper feels that the rationale that the proposed dietary goals are to help treat chronic diseases resembles the reasoning of the nutrition healers. They recommend large doses of vitamins to prevent colds, cancer, and other health problems. The goals promote a simple food cure for all the ailments of old age.[35]

pro

Dr. Kaare Norum of the University of Oslo surveyed over 200 scientists from 23 countries on the relationship between diet and health. The survey found that 99.9 percent believed that there is a connection between diet and the development of heart disease. 91.9 percent believed that knowledge in the area is sufficient to recommend a moderate change in diet.[70] *Most revealing was the fact that only one stated he had not altered his own diet.*[51]

con

Nutritionist Gilbert A. Leveille, Chairman of the Department of Food Science and Human Nutrition at Michigan State University, opposes the dietary goals. He feels that the statistical rise of cancer and heart disease in the past fifty years is just the result of conquering infectious disease.[25] This has increased our life expectancy. We have a higher proportion of the population over age 65, when heart disease and cancer are more likely to occur.[47] In fact, the death rates on an age adjusted basis show a decline in heart disease. Much of the increase in cancer is associated with smoking.[36]

pro *Dr. Ernest L. Wynder, who linked cigarettes to lung cancer, says that you do not have to wait until the final results are in before doing something.* [70]

con The American Medical Association and many other respected, professional organizations and individuals feel that the dietary goals are inappropriate and based on insufficient data.[67] Before making goals for the entire nation, more clinical research is necessary to test the recommended eating changes in the population at risk.[63]

pro *Other scientists, though, feel that we will never have complete scientific proof. We will have to settle for a high degree of statistical probability from studies of various populations around the world.*[38]

con Our nation was founded upon the principle of freedom of choice, which includes the freedom to choose what we eat. Nutrition information is necessary in helping people make these decisions, but prescribing a specific diet for everybody should be beyond the powers of the government.[14]

pro *Those promoting the goals feel quite differently. Dr. Hegsted has stated: "We have an obligation to inform the public of the current state of knowledge and to assist the public in making the correct food choices. To do less is to avoid our responsibility."*[70]

con The industries endorsing the goals--fruit, vegetable, cereal, and fish--are those that would benefit by them. An agricultural group has stated: "Before declaring specific foods such as red meat, eggs and whole milk products detrimental to health, an economic impact study should be done by the government on the removal of the product from the market."[14]

Today is the
1st day
Of the rest
of your life.

Review Time

Are there dangers in the typical American's diet?

MATCH BY PLACING THE LETTER OF THE POSSIBLE CAUSE BEFORE EACH HEALTH PROBLEM.
(Some have more than one possible dietary cause.)

CONTRIBUTING CAUSE

A. Too much sugar
B. Too much fat
C. Too little fiber
D. Too much salt
E. Too much food
F. Cigarette smoking

HEALTH PROBLEM

____, ____, ____ 1. Heart Disease
____ 2. Lung Cancer
____, ____ 3. Diabetes
____, ____ 4. Cancer of the Colon
____, ____ 5. High Blood Pressure
____ 6. Dental Decay
____, ____, ____, ____ 7. Obesity
____ 8. Hemorrhoids
____ 9. Hardening of the Arteries
____ 10. Varicose Veins

1. Have you ever considered that your present diet may affect your future health?

2. How do you feel about the Dietary Goals? Should the government be concerned about our eating habits and even urge changes? What are YOU going to do about the Dietary Goals?

3. Do you foresee any problems if all Americans adopted the Dietary Goals and changed their eating patterns? What impact might this have on various food businesses in our country, including restaurants?

4. Dr. John Sandson, Dean of the School of Medicine at Boston University, feels that nutrition should be one of the most important subjects taught in medical schools. However, a recent survey found that only 17% of U.S. medical schools required a course in nutrition.[58] How do you feel about this?

PERSONAL COMMITMENT

I, ______________________________, am concerned about diet issues and problems. I have participated in the group's discussions of the problems and the goals which we feel should be pursued in order to ensure a quality diet in America.

My basic concern with diet for the future is: ________________

____

____

____

The goals which I believe are important are: ________________

____

____

____

____

At this time, I believe I can help achieve these goals by taking the following actions:

1. ____

2. ____

3. ____

Dated ________________________ Signed ________________________

PERSONAL
COMMITMENT

SELF - EVALUATION

1. As you reflect upon your experiences using this PAL, what were the most important things which you learned?

2. What was the most important thing you learned about:

   a) Your responsibility as a food consumer?

   b) The responsibility of government for our diets?

   c) The responsibility of food manufacturers for safe diets in America?

3. What are important consumer education topics about which you want to know more?

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